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THE EIGHTIETH
ANNUAL REPORT
UPON THE
HEALTH OF LEICESTER
FOR THE YEAR 1928

BY
C. KILLICK MILLARD, M.D., D.Sc.
MEDICAL OFFICER OF HEALTH.

INCLUDING
REPORT of the TUBERCULOSIS OFFICER.
REPORT on the CITY HOSPITAL and SANATORIUM.
REPORT of the CITY ANALYST.
REPORT of the CHIEF SANITARY INSPECTOR.
REPORTS on the V.D. CLINICS.

LEICESTER:
LEICESTER CO-OPERATIVE PRINTING SOCIETY LIMITED, 99 CHURCH GATE.





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Staff of the Health Department.

(As constituted January 1st, 1920.)

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Assist. Tuberculosis Officer	..	E. G. LAWRIE, M.B.
Maternity and Child Welfare Officer	..	HELEN P. DENT, M.B., B.S. (LOND.)
Medical Supt. City Hospital and Sanatorium	..	H. STANLEY BANKS, M.B., D.P.H.
Assist. Medical Officers	..	J. C. MACKENZIE, M.B. A. OGG, M.A., M.B., D.P.H. (since resigned).

SECRETARY OF HEALTH DEPARTMENT: WILFRID CARR.

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S. BEEVER, 1 2	..	W. J. PARKINSON, 1 2 7
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W. C. LONG, 1 2	..	E. THOMPSON, 1 2
W. MUSTON, 1 2	..	

MATRONS.

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Maternity Home	" ANNIE COMPTON, 10 12
Day Nursery	" ALICE M. MASON, 12

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Superintendent	MRS. REED, 10 11
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" J. G. MASTERS, 10 11	..	" E. C. AGAR, 10 11 12	
" E. M. CRAGG, 10 11 12	..	" E. L. WOLLASTON, 10 12	
" L. WRIGHT, 10 11 13	..	" A. D. BARNARD, 10 12	
" E. WILFORD, 10 12	..	" E. R. MATTHEWS, 10 12	
" L. CHAMBERS, 10 12	..	Mrs. M. E. WILLIAMS 10 (part time)	
Manageress of Milk Depot	" E. STANION, 11
Tuberculosis Nurses	Miss F. BEASLEY, 10 12
			" E. MOUND, 10 12

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				" R. BREWARD.
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 2. Holds Meat and Food Inspector's Certif. Roy. San. Inst.
 3. Holds Certif. of Roy. San. Inst. for San. Science as applied to Buildings and Public Works
 4. Holds Smoke Inspector's Certif. of the Roy. San. Inst.
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 6. Holds Meat and Food Inspector's Certif. under Public Health (London) Act, 1891.
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 10. Holds Certif. as Fully Trained Nurse.
 11. Holds Certif. for Maternity and Child Welfare Workers of the Roy. San. Inst.



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MR. HINCKS, O.B.E., J.P.

Vice-Chairman.

MR. PARBURY.

THE LORD MAYOR.	MR. HARRY HALLAM.	MR. J. M. WALKER.
MR. ADAMS.	MR. JOHNSON.	ALD. T. W. WALKER.
" CANNER.	MR. C. E. KEENE.	MR. WILFORD, J.P.
" CORT.	MR. PERRIMAN.	" WINDLEY, J.P.
MISS FORTEY, J.P., B.Sc.	MR. W. H. SMITH.	
" FRISBY, J.P.	MRS. SWAINSTON.	

The Committee meets every alternate Friday in the Committee Room, Town Hall, at 3.30 p.m.

The Health Committee, together with the following co-opted members, not being members of the Town Council, constitute the Statutory Maternity and Child Welfare Committee:—Mrs. Banton, Mrs. Cooper, Mrs. Taylor, Miss E. J. Windley, B.A.

Accounts Sub-Committee.

MR. CANNER.	MR. C. E. KEENE.	MRS. SWAINSTON
-------------	------------------	----------------

Isolation Hospital and Dispensary Sub-Committee.

MR. HINCKS (Chairman).	MR. JOHNSON.	MR. J. M. WALKER.
MR. CORT.	" C. E. KEENE.	ALD. T. W. WALKER.
MISS FORTEY.	MR. PARBURY.	MR. WILFORD.
MR. HARRY HALLAM.	MRS. PERRIMAN.	" WINDLEY.

Health Inspection Sub-Committee.

MR. CORT (Chairman)	MR. HARRY HALLAM.	MRS. PERRIMAN.
" ADAMS.	" HINCKS.	MR. W. H. SMITH.
MISS FORTEY.	" JOHNSON.	" J. M. WALKER.
MISS FRISBY.	" PARBURY.	ALD. T. W. WALKER.

Maternity and Child Welfare Sub-Committee.

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MRS. R. BANTON.	MR. HARRY HALLAM	" L. TAYLOR.
" A. COOPER.	" HINCKS.	MISS E. J. WINDLEY.

Maternity Home and Day Nursery Management Sub-Committee.

THE LORD MAYOR (Chairman).	MR. HINCKS.	ALD. WINDLEY.
MRS. BANTON.	MR. PARBURY.	MRS. PERRIMAN.
" COOPER.	MRS. HINCKS.	" L. TAYLOR.
MISS FORTEY.	" TAYLOR.	MISS E. J. WINDLEY.

Venereal Diseases Sub-Committee.

MISS FORTEY.	MR. PARBURY.	ALD. T. W. WALKER.
MR. HARRY HALLAM.	" W. H. SMITH.	MR. WILFORD.
" HINCKS.	MRS. SWAINSTON.	" WINDLEY.
" JOHNSON.	MR. J. M. WALKER.	

General Purposes Sub-Committee.

THE LORD MAYOR	MR. JOHNSON.	MRS. SWAINSTON.
MR. HINCKS (Chairman).	" C. E. KEENE.	ALD. T. W. WALKER.
MISS FORTEY.	" PARBURY.	MR. WILFORD.

Necessitous Cases Sub-Committee.

MR. COOPER (Chairman).	MR. HARRY HALLAM
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SUMMARY OF STATISTICS FOR THE YEAR 1928.

CITY OF LEICESTER.

Population at Census, 1921	234,143
„ (estimated) at Mid-year 1928	..	..	..	246,000
Marriages	..	..	..	2,336
Marriage-rate	..	..	..	18.99
Births	..	..	..	3,988
Birth-rate	..	..	..	16.21
Deaths (corrected for transferable deaths)	..	..	..	2,748
Death-rate	..	..	..	11.17
Deaths under One Year	..	..	..	282
Infant Mortality (per 1,000 Births)	..	..	..	70.71
Zymotic-rate	..	..	..	.43
Diarrhoea-rate	..	..	..	.20
Respiratory-rate	..	..	..	1.43
Cancer-rate	..	..	..	1.42
Tuberculosis-rate	..	..	..	1.24
Phthisis-rate	..	..	..	1.07
<hr/>				
Area of City (in acres)	..	..	..	8,582
Number of persons per acre at Census, 1921	..	..	..	27.2
Number of persons per Tenement at Census, 1921	..	..	..	4.28
Number of Inhabited Tenements, Census, 1921	..	..	..	54,657
Number of Inhabited Tenements, December, 1928	..	..	..	60,550
Number of Empty Houses, March, 1929	..	..	..	322
Number of Empty Cottages, March, 1929	..	..	..	85
Rateable value (1st November, 1928)	..	..	..	£1,523,811

	1927-28	1928-29
Rates in the £:		
Poor Rate	.. 2 9	2 7
General District Rate	.. 12 2	12 4

	England & Wales	107 Great Towns (Population exceeding 50,000)	London
(For comparison).			
Birth-rate	.. 16.7	16.9	15.9
Death-rate	.. 11.7	11.6	11.6
Infant Mortality (per 1,000 Births)	.. 65	70	67

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HEALTH DEPARTMENT,

GREY FRIARS,

LEICESTER,

10th July, 1929.

To the Chairman and Members of the Health Committee.

LADIES AND GENTLEMEN,

I beg to present the Annual Report on the Health of Leicester for the year 1928.

The retrospect is a favourable one. The death-rate was 11.17, which is actually the lowest rate ever recorded. Compared with other towns Leicester was the fifth lowest out of the 38 largest towns in the country.

The infant mortality, which was 70.71, also creates a fresh record for Leicester, the previous lowest being 75.15 in 1927, a very substantial drop.

The year was marked by an outbreak of smallpox, which entailed a large amount of work before it was finally stamped out (in June, 1929). The outbreak, which fortunately was unattended by any deaths, is fully reported upon in the body of the Report.

Scarlet Fever was also epidemic during the year. A new treatment for this disease now being employed at the Isolation Hospital by the Medical Superintendent (Dr. Stanley Banks) has proved very successful in cutting short the disease and preventing complications.

There was only one death from measles during the year.

Cancer continues to take a heavy toll of human lives and is to-day probably the most serious, as it is the most dreaded, of all causes of death.

Happily, treatment by radium is giving excellent results in certain forms of cancer, *if only the treatment is commenced early enough.*

The Cancer Control Clinic provided by your Committee is designed to facilitate early diagnosis. Its scope, at first restricted to certain forms of cancer in women, has now been extended to include all forms in either sex (see pages 25 and 26).

The question of Slum Clearance has been taken up and a Scheme (Green Street—Sandacre Street Area) has now been sanctioned by the City Council and is in course of preparation prior to submission to the Ministry of Health (see page 43).

The question of Slum Clearance, however, is of secondary importance to that of re-housing the slum dweller. This is the real crux and special attention is drawn to the section of the Report dealing with this aspect under the heading, "A Policy for the Slums" (see page 42).

I would also draw attention to the excellent reports of my colleagues in charge of the special sub-departments included as Appendices to this Report, and which deal with the work of the Tuberculosis Dispensary, the Isolation Hospital and Sanatorium, the City Laboratory, Sanitary Inspection, and the V.D. Clinics.

I desire to express my appreciation of the work of these officers and of the staff of the Health Department; and I would specially mention the Secretary, Mr. W. Carr, who as my "Chief of the Staff," is simply invaluable.

To the Chairman (Councillor W. E. Hincks) and to the individual members of the Committee I wish to tender my best thanks for their unfailing courtesy and consideration.

I am, Ladies and Gentlemen,

Your obedient servant,

C. Killick Millard

Medical Officer of Health.

Medical Officer of Health's Report

FOR THE YEAR 1928.

PART I.

Population.

The Registrar General estimates the population of Leicester, as at the middle of 1928, to be 246,000. This is only 1,000 more than the estimate for 1927, which was 3,300 more than the figure for 1926.

On the other hand, the population of the Administrative County of Leicester has been increased by some five thousand, largely in the immediate vicinity of Leicester.

The increase in the population of Leicester during the seven years since the last Census, according to the Registrar General's estimate, amounts to 8,100. In view of the large amount of house building which has taken place in Leicester during that period it might be thought that the actual increase in population must have been something greater than this estimate. Moreover, during the period in question the births registered have numbered 30,866 and the deaths 20,505, showing a "natural increase," or excess of births over deaths of 10,361. It has to be remembered, however, that many Leicester families and newly-married couples have gone to live in new houses on the outskirts of Leicester just outside the city boundaries, a very large number of such houses having been built both by the Corporation (on the Park and Braunstone Housing Estates) and by private enterprise.

When the next Census takes place, two years hence in 1931, we shall learn what our true population really is.

Marriages.

The number of marriages solemnised in Leicester during the year was :—

In Church of England ..	1,205
Elsewhere	1,131
Total	2,336

The marriage rate was 18.99.

Births.

The corrected number of births for the year was 3,988, of which 2,045 were males and 1,943 were females. The number was 23 more than in the previous year, and the increase, small though it is, is of some significance seeing that the number of births has been falling each year since 1920, the year when it reached its maximum following demobilisation after the War.

The Birth-rate was 16.21.

Still-Births.

The number of still-births notified was 97, viz., 59 by midwives and 38 by doctors. The number of interments of still-born children at the City cemeteries was 277, so that a very considerable number escaped notification. A circular letter to all doctors and midwives has been sent out drawing their attention to their duty to notify still-births.

Illegitimacy.

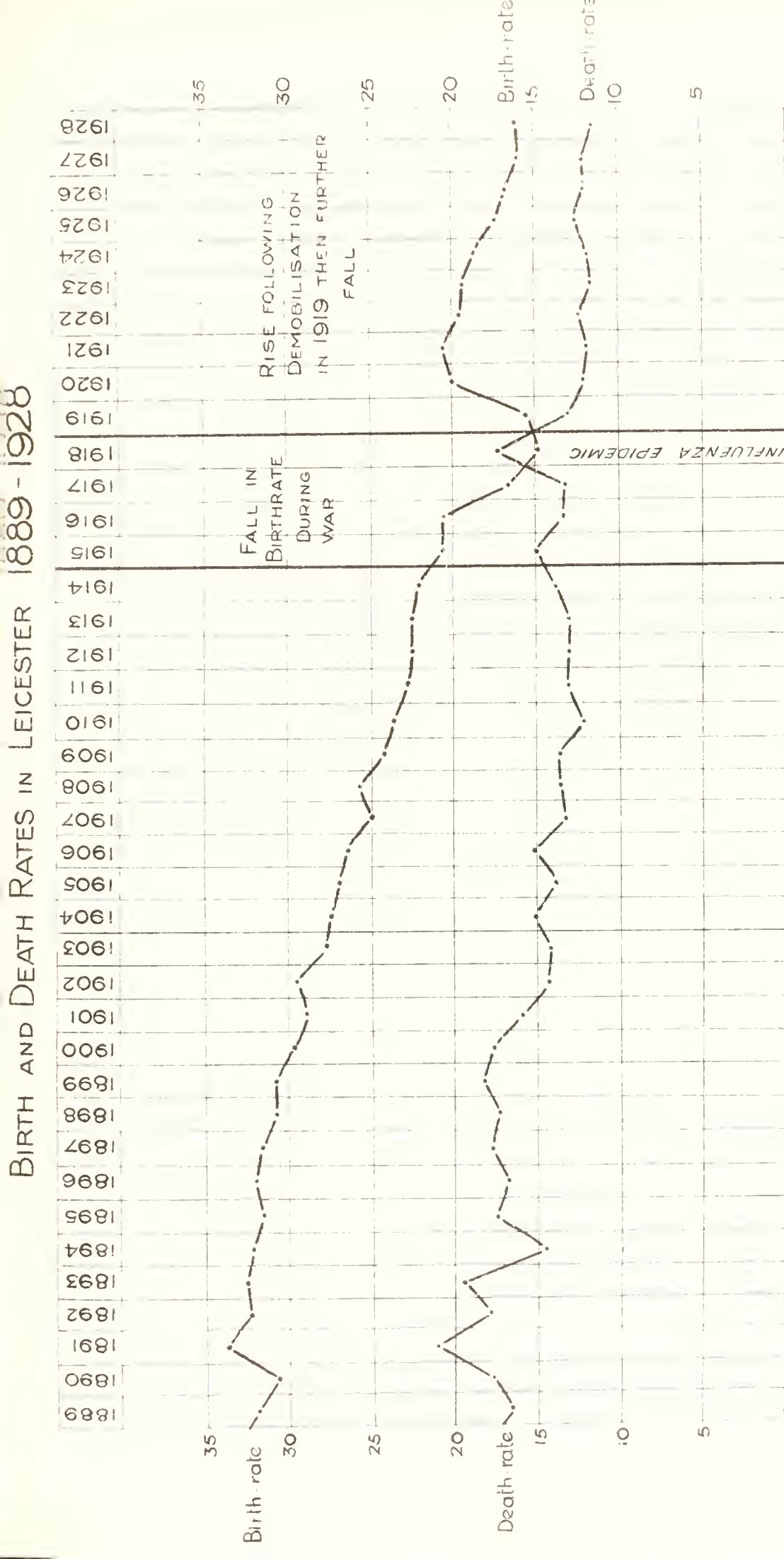
The number of illegitimate births was 244, equal to 6.1 per cent. of the total births. This is a little above the average. In the previous year the number was 203, or 4.9 per cent.

Deaths.

The number of deaths, after making the usual corrections for institutional and transferable deaths, was 2,748, of which 1,408 were in males and 1,340 in females. This is the lowest figure since before the War.

The **Death-rate** was 11.17, which is actually the lowest rate ever recorded, the previous lowest being for the year 1923 when it was a fraction higher, viz., 11.57.

The average death-rate for the previous five years, 1923-27, was 12.26.



The reduction last year is all the more satisfactory seeing that we are approaching the time, as has been pointed out in previous reports, when, owing to the altering age distribution of the population, with an increasing proportion of old people, we must expect to see the death-rate go up irrespective of any decrease in the health of the population or of the expectation of life.

Infant Mortality.

During the year the number of deaths of infants under one year of age was 282, equal to an infant mortality per 1,000 births of 70.71. This is the lowest rate ever recorded in Leicester and is, of course, in view of the special activities of the Health Department in connection with infant welfare, highly satisfactory.

The figures (omitting decimals) for the previous ten years have been as follows:—

1918	..	108	1923	..	84
1919	..	98	1924	..	79
1920	..	89	1925	..	87
1921	..	85	1926	..	77
1922	..	87	1927	..	75
1928		..	71		

As has often been pointed out, whilst there is an obvious limit to the extent to which the general death-rate can be brought down, since people must die some time, there is no theoretical limit to the extent to which we may reduce the infant mortality. In many individual families infant mortality is **nil**, and in some small healthy communities the figure may be, in good years, but little above this point. In the best wards in Leicester the infant mortality sometimes falls below 50, or even 40, per 1,000, and we must strive to reduce all the wards to the same low level. Theoretically, what is possible in one ward should be possible in all. How far we shall succeed, time alone will show. Certainly the most optimistic amongst us little imagined, 20 years ago, that such a remarkable reduction as has been actually accomplished could ever take place in so short a time!

Infant Deaths During First Year of Life.

Mortality amongst infants is very much higher during the first month of life than afterwards, and it is much higher during the first week of the first month than during the other three weeks.

This is shown graphically in Graph II., from which the excessive mortality during the first week of life is shown at a glance. No less than 91 of the 282 infant deaths, i.e., 32 per cent.—or practically a third—occurred during the first week. The explanation is not merely that the first week is the most trying, but that the figure includes all those infants born with some abnormality or defect which is incompatible with life.

LEICESTER COMPARED WITH OTHER LARGE TOWNS.

In Table 23 will be found the principal vital statistics of each of the 38 large towns with populations of over 100,000. This is the group with which Leicester can most fairly be compared, and the statistics can be briefly summarised as follows :—

Birth-rate. Leicester comes 14th out of 36 towns reporting.

General Death-rate. Only four towns had a lower rate than Leicester, viz., Wolverhampton, 10.3 ; Coventry and Southend, each 10.4 ; Norwich, 10.7.

To attain fifth place out of 38 towns is certainly satisfactory.

Infant Mortality. 14 towns had a lower infant mortality. The lowest rates recorded anywhere were Southend, 40 ; Norwich, 42 ; Brighton and Southampton, 49.

It is evident that there is still plenty of scope for Leicester to further reduce her infant mortality.

COMPARATIVE WARD STATISTICS.

(See Table 2.)

The real object of statistics is to enable comparisons to be made, since isolated data convey very little. It is always interesting to compare one district or unit of population with another. Although annual fluctuations in birth and death-rates may introduce a disturbing factor, there are certain districts in Leicester, as in all cities, which tend to come out much better, or worse, than others.

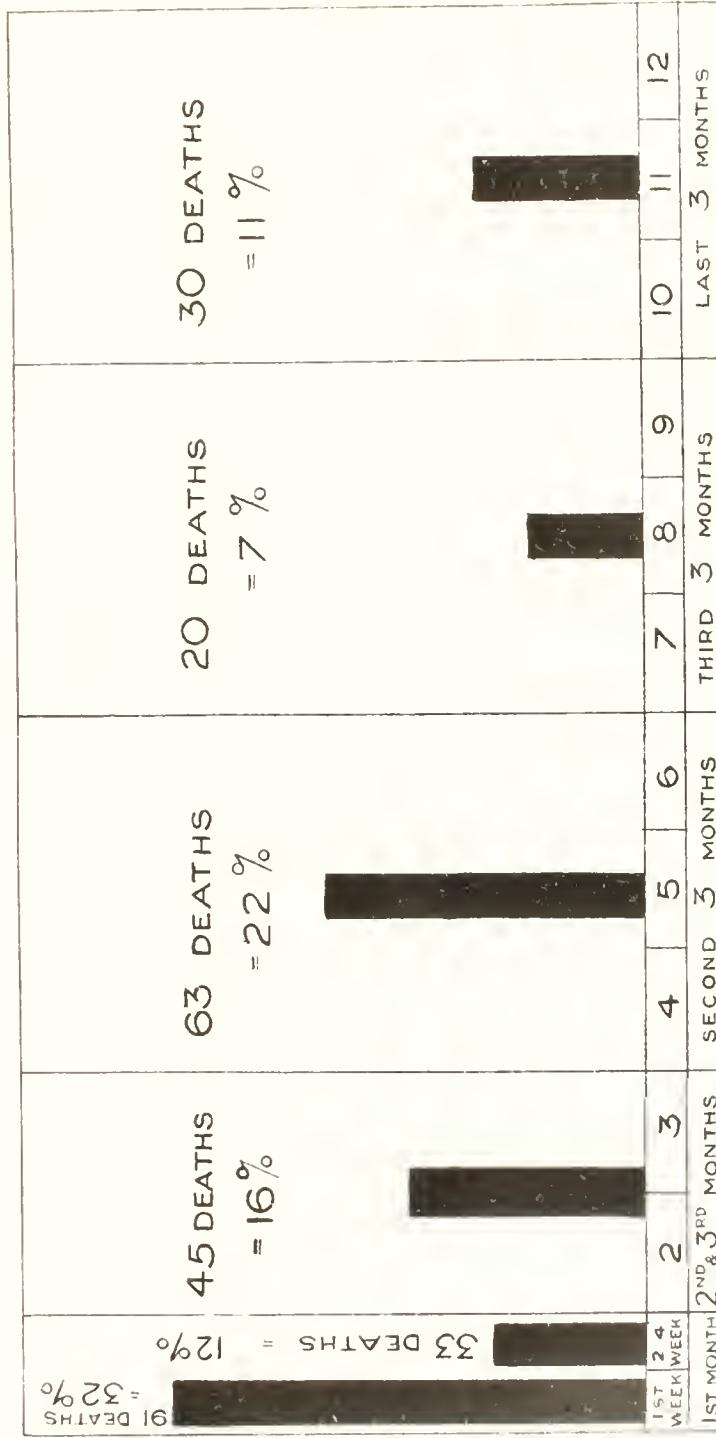
Ward Death-Rates, 1928.

	Highest.		Lowest.
Wycliffe	.. 16.4	Aylestone	.. 7.8
Newton	.. 14.2	The Abbey	.. 8.7
Wyggeston	.. 14.1	Westcotes	.. 9.3
Charnwood	.. 12.2	Spinney Hill	.. 9.4

GRAPH II

INFANT DEATHS IN 1928.

AT DIFFERENT PERIODS DURING FIRST YEAR OF LIFE.



Note the excessive number of deaths during the first month and especially during the first week of life.

It is satisfactory to find the worst wards, such as Newton, Wyggeston and St. Margaret's, gradually improving. Indeed, for the past year, bearing in mind the position of these wards in the centre and most congested parts of the city, the death rates were not unsatisfactory. Wyggeston's average death rate for the previous five years was no less than 18.1 and Newton's 15.5.

At the other end of the scale we find that Knighton Ward, which has so often had the lowest death-rate of any ward, last year failed even to get "placed" amongst the first four. It was, however, only a fraction below Spinney Hill, the figure being 9.5.

At the other end of the scale we find Aylestone carrying off the "blue ribbon" with the remarkably favourable rate of only 7.8. This is partly accounted for, no doubt, by the highly selected population containing very few old people, recently added to Aylestone through the development of the Park Estate.

Ward Birth-Rates.

Highest.		Lowest.
Wyggeston	.. 27.2	Knighton .. 8.6
St. Margaret's	.. 24.4	Westcotes .. 9.8
Aylestone	.. 19.4	Latimer .. 10.2
Belgrave	.. 19.0	De Montfort .. 10.4

The high birth-rate in Wyggeston and St. Margaret's has repeatedly been commented on in these reports, as also has the low rate in Knighton and Westcotes and De Montfort. Standard of life has a well-known effect upon fecundity, and, speaking generally, and admitting certain exceptions, the more adverse the conditions of life the higher the birth-rate.

Infant Mortality.

Highest.		Lowest.
Newton	.. 172	Knighton .. 37
St. Martin's	.. 137	Spinney Hill .. 46
Latimer	.. 126	De Montfort .. 53
Wyggeston	.. 88	Westcotes .. 54
		Belgrave .. 54

The very high rate in Newton Ward is exceptional and much above the rates of the last few years. It may probably be regarded as an accidental fluctuation. As a matter of fact Newton Ward has shown considerable improvement in recent years, as also has Wyggeston Ward.

Phthisis Rate.

In order to get a better idea as to the relative position of the different wards as regards phthisis, the average rates for the past seven years has been worked out (per 100,000) :

	Highest.		Lowest.
Wyggeston	..	215	Knighton ..
W. Humberstone		190	De Montfort ..
Newton	..	156	Aylestone ..
St. Margaret's	..	150	Spinney Hill ..
Castle	..	147	Westcotes ..
Latimer	..	143	Belgrave ..

The contrast between the wards situated in the centre of the city and those on the outskirts is very marked. Density of population as well as social conditions influences tuberculosis.

PART II.

Zymotic and other Specified Diseases or Causes of Death.

SMALLPOX.

Smallpox is a disease of very special interest in Leicester owing to its relationship to the vexed question of vaccination and to the unique position which Leicester occupies in connection with that question.

Leicester stands before the country—indeed before the whole civilised world—as a city which over 40 years ago set the compulsory vaccination law at defiance and professed her ability to control smallpox without vaccination of the general population. From that time the vaccination law, so far at least as compulsion was concerned, remained virtually a dead letter until the passing of the Act of 1898 with its famous Conscience Clause provided a more constitutional method of evading compulsion, the net result being that in past 41 years 90 per cent. of the children born have not been vaccinated.

Any outbreak of smallpox in Leicester, therefore, is watched with special concern by all interested in the maintenance, or abolition, of compulsory vaccination.

During the 41 years smallpox has repeatedly been introduced into the city. Usually it has been stamped out without much difficulty, but on a few occasions it has succeeded in attaining epidemic prevalence.

Up till last year there had been four outbreaks of sufficient importance to be classed as epidemics:—

Year.		Cases.	Deaths.
1892-3	..	358	21
1902-3	..	394	21
1903-4	..	321	4
1925	..	72	0

Now we have to chronicle a further epidemic, that of 1928-29, resulting in 197 cases with no deaths, 90 of the cases occurring in 1928 and 107 in the first half of 1929.

This last epidemic and the previous one have been of the non-fatal variety of the disease, which is coming to be known as **variola minor**, or minor smallpox. There is little doubt that this is a distinct variety of smallpox which, whilst closely allied with the more serious form variola major--nevertheless "breeds true," and, in spite of assertions to the contrary, it has never yet been proved that the one variety changes into the other.

History of the 1928-29 Epidemic.

On May 11th, 1928, after the city had been quite free from the disease for over two years, two cases of smallpox of the minor variety were discovered in a male ward at North Evington (Poor Law) Infirmary. The source of infection was traced to a tramp (F.R.B.) who had been admitted to the ward from the Workhouse a fortnight previously. At the time of his admission this man had a slight eruption of spots which were not thought to be of any special significance. In the light of subsequent events, however, there is little doubt that he had had a slight and overlooked attack of smallpox. Vaccination of such of the other inmates of the ward who were willing to submit to it was at once carried out by the Medical Superintendent and other precautions taken. A fortnight later, four further cases occurred in the same ward, infected from the first two cases, and there the outbreak ceased so far as the North Evington Infirmary was concerned.

In the meantime, however, certain of the patients in this ward had left the institution and returned to their houses. One of these (W.H.B.) a man of 73, developed the disease at his home in Syston Street. This case was kept under observation in the usual way, but one day, on being visited by the M.O.H., it was found that, contrary to the advice of the friends with whom he lived, he had gone to see his own doctor. He was found by the M.O.H. sitting in the doctor's waiting room amongst a number of other patients, and with the smallpox eruption just appearing. He was at once removed to hospital, contacts were carefully watched, and no other cases were directly traced to him. A month later, however, a case was reported in the same neighbourhood. This was in a young woman (G.C.) living in Gresham Street, who was keeping company with a young man living in Birstall Street, the next street to Syston Street. Inquiries at the house of this young man elicited the fact that his

brother (H.B., age 17), had been ill and had some spots on him. At the time of the M.O.H.'s visit he was visiting a neighbouring picture theatre. He was followed there and, with the assistance of the Manager, was asked to come outside. He proved to be undoubtedly suffering from smallpox in an infectious stage. He had been sitting in the midst of a crowded audience for about 1½ hours. Fortunately, only one other case, so far as could be discovered, was infected on this occasion. Nevertheless some further cases arose in the same district a little later on.

Simultaneously with the train of events which has just been narrated the disease was introduced into the city, quite independently from a neighbouring town, in the person of a youth (H.H., aged 19), living in Eastbourne Road, who had visited the town in question (where smallpox was present) a fortnight before. He infected his mother, but as far as is known, no one else.

By the end of July there had been altogether 18 cases. There were two more in August and then no further cases occurred for five weeks. It was hoped, therefore, not unnaturally, that the outbreak was at an end. The last smallpox patient was discharged and, after disinfection, the hospital was reopened for tuberculosis cases in children. At the beginning of the outbreak in May, the first nine cases had been sent to the Leicestershire County Council Smallpox Hospital at Syston, which happened to be open. (A working arrangement had been come to between City and County that whichever Authority happened to have its hospital open should take any cases from the district of the other.) Then, when this was closed, a few cases were sent to the Nottingham Smallpox Hospital, but owing to the inconvenience of this (the hospital is over 30 miles from Leicester) it was decided, in the expectation that more cases would occur, to open Anstey Lane for Smallpox, the Tuberculosis children being first sent home. This was done in July. However, only a few more cases occurred, and when the last smallpox patient had been discharged (in August) it was hoped the epidemic was over. The hospital was then reopened for Tuberculosis, after having been closed for that disease for only six and a half weeks.

Unfortunately, at the end of September a fresh case of smallpox arose in Argyle Street. No direct clue was obtainable as to how or where the infection had been contracted except that it was in the infected district. In October the disease was again introduced into the City by a School Teacher who had come from a neighbouring town, where smallpox was present, to take up an appointment at one of our Council Schools situated in Church Gate. This man

arrived in Leicester on a Friday feeling ill. On the following Sunday spots began to appear on his face. On the Monday, feeling better in himself, he decided that he ought not to absent himself on the first day from his new post, so he turned up at the school and incidentally apologised for the spotty condition of his face. He was introduced to and shook hands with the other members of the staff, and then took a class of boys during the morning. At the dinner interval he thought that perhaps it would be better to consult a doctor, which he had not hitherto done, and this he did. The doctor sent for the M.O.H., and the man was found to be suffering from undoubted smallpox (of the minor variety) and was at once removed to hospital. A careful watch was kept by the School Medical Officer and M.O.H. upon the boys and staff attending the school in question for the usual period, but only one of the boys (in the class taken by the teacher) was discovered to have contracted the disease. It is quite possible, however, that some other case or cases may have been missed, and in view of the very trivial character of the disease it is quite easy to understand how this might have happened. However that may be, further cases, after an interval of a few weeks, arose in connection with this school, and, shortly afterwards, the disease succeeded in getting hold of this part of the city. It is by no means certain that these latter cases were really connected with the school in question, though the circumstances rather seemed to point to it.

The first nine cases of this fresh outbreak were sent to the Nottingham Smallpox Hospital and then at the middle of October, owing to the occurrence of two missed cases the situation was judged to be sufficiently serious to justify again sending out the Tuberculosis children from our own hospital in Anstey Lane in order to use it for smallpox. It remained in use for smallpox until the end of the epidemic in June, 1929.

The circumstances attending the two missed cases referred to above were as follows: They were two sisters and the first of them to be attacked had been seen by a medical practitioner who unfortunately regarded the case as one of chickenpox, and therefore no special precautions were taken. The second case, occurring a fortnight later, was naturally thought by the mother to be the same disease. These two overlooked cases infected other members of their family, relatives, neighbours and workmates, living in various parts of the city, and these again infected others, making a total of 14 cases.

It took many weeks of hard work before the infection thus disseminated could be stamped out.

Meanwhile, a case had occurred in a man (H.H.) in the Belgrave district. In this case the infection was very probably imported, as the man travelled all about the country in connection with his business and no local clue could be established. He in turn infected a friend and also an Insurance Agent, both of whom had visited him at his house.

The disease next appeared in a crowded household in Pasture Lane where six cases occurred.

It also appeared in Vauxhall Street, another very poor neighbourhood, traceable to a missed case, a boy (E.T.P.), who was thought by his medical attendant to be chickenpox. This boy directly infected five other members of his family, two neighbours, the young woman who was keeping company with an elder brother, his grandmother, and a playfellow, making a total altogether of ten cases, and these in turn infected several other cases. In this way the epidemic was kept going, and by the end of the year there had been 90 cases. The highest number in hospital at any one time was 35, but the average was much less than this.

Progress of the Outbreak during 1929.

Early in 1929 the disease made a determined effort to establish itself and assisted by further "missed," i.e., undiagnosed and unreported cases, many different parts of the city became involved. Fortunately the schools of the city enjoyed an immunity which is certainly remarkable in view of the fact that 90 per cent. of the scholars are unvaccinated, but the same immunity has been noted in previous epidemics. Where it did get introduced into a school it was soon got rid of and not one serious school outbreak occurred. The disease was, however, introduced into a number of factories, including some very large and important ones. Whenever a factory was involved, owing to an employee being attacked by the disease, if there was any reason to think infection might have been introduced the firm was informed privately of all the circumstances and the steps to be taken in the event of any further cases arising were decided upon. Names and addresses of all absentees from work during the quarantine period would be sent at once to the M.O.H., who then visited and kept the absentees under observation if any suspicious symptoms were present. In several cases it was thought desirable that the employees working in the particular room where the case had occurred should be got together in order that the M.O.H. might explain the situation to them. In only one instance was it thought desirable to vaccinate the other employees who had been exposed to infection. In the writer's opinion

this step is not as a rule necessary or desirable, and only rather exceptional circumstances justify it. In all cases the steps taken were successful and no really serious spread occurred in any factory after precautions had once been taken. The largest factory outbreak occurred at almost the very end of the epidemic, about 12 cases occurring.

Several times before its actual termination it was hoped that the epidemic was over, only two or three cases remaining in hospital, but each time it flickered up again in some unexpected quarter, and it was not until June 5th that the last patient was discharged from Anstey Lane Hospital and the outbreak finally brought to an end.

By that time 107 further cases had occurred. Adding these to the 90 cases which occurred in 1928 makes a total of 197 for the whole epidemic. In addition, six cases infected in Leicester occurred in the county, and were treated in our hospital, but these are not included here.

**Complete figures for the Smallpox Outbreak in
Leicester, May, 1928—June, 1929.**

Total number of cases ..	107	Deaths ..	0
Vaccinated cases ..	23		
Unvaccinated cases ..	174		

All the vaccinated cases were over 40 years of age except two who were 29 and 36 respectively. The last named case was a man who had been also re-vaccinated in the Army in 1914, 15 years before. This was the only re-vaccinated case. He only had a few indefinite pimples and there was some doubt as to whether he really had the disease. His wife and family were all attacked at the same time (infected by an overlooked case), and it was thought safer to regard him as a case of smallpox also and isolate him with the rest of the family.

Age distribution of the unvaccinated cases :—

0—4 years ..	..	..	..	6 cases.
5—9 ..	..	..	..	26 ,,
10—19 ..	..	..	..	67 ,,
20—39 ..	..	..	..	61 ,,
40 and over ..	..	..	..	14 ,,
 Total ..	..	..	174 ,,	

In considering the age distribution of cases of smallpox in Leicester, as between the vaccinated and the unvaccinated, it must be remembered that owing to the revolt against vaccination forty years ago there are comparatively very few persons in Leicester under the age of forty who have been vaccinated in infancy. There are, however, a considerable number of adult males who were vaccinated in the Army during the Great War in the years 1914-18, i.e., 10-15 years ago. It will be noted that only the one supposed case of smallpox mentioned above occurred amongst this group, and this case being a doubtful one may be ignored.

Type of Disease.

The great majority of the cases were clinically of a very trivial description. The early symptoms, lasting for from two to five days, closely resemble those of ordinary influenza, and during this stage the patient may feel very poorly and have to remain in bed. This period is followed by the appearance of the eruption, when all the symptoms, if they have not already disappeared, clear up completely. The patient then feels and remains quite well. The eruption, while usually very sparse and trivial, is, in a small minority of the cases, unpleasantly severe, and when there is much on the face there is occasionally a danger of troublesome conjunctivitis (inflammation of the eyes) occurring as a complication. In contrast with major smallpox (the old-fashioned variety) the eruption clears off very quickly leaving little, if any, permanent pitting or disfigurement; there is also an absence of the toxic symptoms often present in the major variety when the eruption "matures." It is rarely necessary to detain cases of minor smallpox in hospital for more than two or three weeks.

All of the 197 cases made good recoveries. Two cases suffered from conjunctivitis which entirely cleared up.

Visits of Medical Practitioners to Smallpox Hospital.

In order that medical practitioners might have an opportunity of familiarising themselves with the clinical appearance of the disease, repeated demonstrations were held at the smallpox hospital to which all practitioners in the City were invited; and which indeed they were pressed to attend. At first these demonstrations were held on Sunday mornings, and a good many practitioners took advantage of them. A circular was sent out to those who had not attended giving them a choice of times. Even so, however, there were still several practitioners in Leicester who never attended. Two of these gave as an explanation of their non-attendance that they had not recently been vaccinated and that it was not convenient

to run the risk of being laid up! This is a perfectly valid excuse for not wishing to be vaccinated in the case of an ordinary member of the community, but in the case of a doctor, who may be brought face to face with a case of smallpox at any time, it is hardly a wise course to take. Nor indeed is it a right course, because in view of the vital importance of correct diagnosis, every doctor should surely guard as far as possible against the possibility of failing to recognise the disease.

Vaccination of Contacts.

Vaccination is the artificial infliction of a disease—vaccinia. It is therefore in itself an evil, and it can only be justified on the ground that it is calculated to prevent a worse evil. Where one is dealing with minor smallpox it is open to question whether from the point of the individual, the one disease—vaccinia—is not almost, if not quite, as serious a matter as the other disease—smallpox. There are, however, other considerations—the public interest, injury to trade, etc., which make it desirable to cut short an outbreak as quickly as possible. It is chiefly on this account that vaccination of contacts is called for. In view, however, of the comparatively trivial character of minor smallpox, I did not in the recent outbreak press vaccination nearly as strongly as I used to do in the old days when dealing with major smallpox. Moreover, the newly recognised additional risk attaching to vaccination in connection with encephalitis is too serious to be ignored.

Nevertheless 406 contacts, living in 160 different houses, were vaccinated by me in cases where consent was obtained.

The vaccination of this large number of persons, including all necessary subsequent attendance and dressings, necessarily entailed a very large amount of extra work, but I much prefer on principle to do it myself rather than hand it over to anyone else.

The total number of contacts dealt with was 779, living in 306 houses. Contacts may be divided into two classes: (1) persons living in the same house as the patient ("house" contacts); (2) persons not living in the same house ("outside" contacts). The former are, of course, the more important as the degree of contact is usually much closer and more prolonged.

There were 542 "house" contacts, and of these 303 submitted to vaccination, or 56 per cent., and there were 237 "outside" contacts,* of which 103 consented to be vaccinated, or 43 per cent. In many of the cases not vaccinated the reason was not that they refused, but that owing to the length of time which had elapsed

* This, of course, is exclusive of other employees in factories, schoolmates, &c.

it was considered too late for the vaccination to be effective and it was therefore not advised. Also, in very many of the "outside" contacts the degree of contact was not considered sufficient to call for vaccination.

Supervision of Contacts.

In Leicester the close supervision of contacts is regarded as a preventive measure of the very first importance. Personally, I place the supervision of contacts as of more importance than the vaccination of contacts. It would be quite possible to dispense with the latter; indeed, as stated above, I attach much less importance to it than formerly; but careful and systematic supervision of contacts is indispensable. In the great majority of cases I was able to supervise contacts personally—it is essentially a medical matter—but I gladly acknowledge the valuable help most willingly rendered by the sanitary inspectors whenever they were called upon.

The careful supervision of so many contacts (779 in 306 houses) even though spread over many months, kept the writer very busy and necessarily prevented, for the time being, very much time being given to other work.

Exclusion of Contacts from Work.

A question which constantly arises whenever a case of smallpox occurs in a household is whether other inmates of the house should be allowed to continue at work? It is not possible to decide this question on general grounds—each case has to be considered on its merits in view of the particular circumstances, e.g., degree of contact (whether sharing same bedroom or bed); duration of exposure to infection; nature of contact's work (whether in a factory or out of doors); and last but not least, whether the contact has been vaccinated within, say, the last ten or fifteen years.

The final decision in any case rests not with the M.O.H., but with the employer. Some firms prefer that no contacts shall return to work until after the expiration of the incubation period, which may mean waiting 16-18 days. Others are willing that contacts shall return if the M.O.H. thinks it reasonably safe for them to do so. Our practice in Leicester is to keep all contacts at home for at least 24 hours, whilst the house is being disinfected. Further than this each case has to be decided on its merits.

Compensation.

Wherever it is thought desirable to keep contacts away from work, they are granted some pecuniary compensation. For this purpose Leicester possesses special power, under a local Act. The

usual amount is 14s. a week (2s. 6d. a day), but when a contact is the head of a household this amount is increased. The total amount paid in compensation during the epidemic was £153.

I have found the payment of this compensation a very great help. It gives one a hold over contacts which one would not otherwise have. Moreover, I regard it as an act of common justice, since the abstention from work is in the interest of the whole community and is in no sense through any fault of the individual concerned. If the individual were away from work on account of illness he would be able to draw sickness benefit, but in the circumstances in question he is not entitled to this.

Avoidance of Scare.

It has always been a fundamental principle in Leicester when smallpox occurs to avoid publicity as far as possible or the causing of unnecessary alarm. In some towns undoubtedly a smallpox outbreak is deliberately used as an occasion for attempting to induce people to get vaccinated. In such places posters are put up enlarging upon the horrors of smallpox and the virtues of vaccination. This necessarily involves the widest publicity and causes considerable alarm, and a certain number of the public will doubtless act upon the advice and get vaccinated, though whether the vaccination of say 10 or 15 per cent. of the population is likely to make much difference as regards the spread of smallpox is a matter of opinion. But undoubtedly the scare caused must seriously injure trade; and a good many people are made temporarily ill as the result of the vaccination. In Leicester we confine our efforts *re* vaccination to those people most needing it, viz., the actual contacts, and the advice is given verbally and privately to those concerned and is not broadcast to the public. The number of new cases occurring is included in a weekly return of all infectious diseases sent to the newspapers, and this is usually inserted without comment. A brief statement of the position is, of course, included in the reports of the Health Committee to the City Council. The result of this policy is that an outbreak of smallpox in Leicester causes very little excitement or alarm, and the minimum of injury is inflicted on the trade of the City, or on the health of the inhabitants.

VACCINATION IN LEICESTER.

The number of vaccinations performed under the Vaccination Acts and registered by the Vaccination Officer during the year was as follows:—

Public, 121. Private, 71. Total, 192.

Exemptions granted, 3,712.

The average number of vaccinations for the previous five years was 246, so that in spite of the fact that smallpox was present in the city for nearly eight months of the year the vaccination figures were substantially less than usual. This fact is a complete refutation of the statement sometimes made by ill-informed persons that when smallpox comes to Leicester the population flock to get vaccinated.

In this connection it is of more than local interest that in spite of the fact that compulsory vaccination was abandoned over 40 years ago, **smallpox has caused no death in Leicester for the past 25 years.** The last fatal case occurred in June, 1904. Such a record is certainly remarkable and is rather different from what was so confidently expected and predicted by many when the Leicester experiment first began.

Administration of Vaccination under the Local Government Act, 1929.

Under the Local Government Act, 1929, which comes into force in April, 1930, the administration of the Vaccination Acts is definitely taken out of the Poor Law and handed over to the Health Committee. This, of course, is as it should be, but it is a pity that Local Authorities were not given the option of abandoning compulsion in regard to vaccination if they so desire.

The granting of Local Option, indeed, on such a question as this, on which opinion is so divided, would be a simple and easy way out of an undoubted difficulty. Those localities where public opinion was in favour of compulsory vaccination could retain it, whilst in those places where public opinion was against it it could be abandoned. This would largely obviate the loud outcry which will doubtless arise when the Government decide upon a general repeal of the Vaccination Acts.

If the effect of such local abandonment of vaccination was found to be disastrous owing to increase in smallpox in those districts which had abandoned it, it would be a comparatively easy matter to repeal the local option clause. If on the other hand the experience was similar to that of Leicester (and personally I have no doubt it would be so) other towns would doubtless follow suit and compulsory infant vaccination would gradually become a thing of the past. I throw this out as a suggestion to the new Government.

ENCEPHALITIS FOLLOWING VACCINATION.

Within the last few years certain cases of encephalitis have occurred following vaccination in this and other countries in which

there has been reason to think that the association was not merely a coincidence but was definitely a case of cause and effect. The number of these cases occurring in this country is, fortunately, only very small in proportion to the number of vaccinations performed, but the disease in question is of so serious a character that the possibility of such complication occurring as a sequel to vaccination has necessarily given rise to grave concern.

Moreover, in Holland, where cases of post-vaccinal encephalitis have also occurred, the proportion of cases to vaccinations has been much higher and has caused such serious apprehension that the Government of Holland, on the advice of the Health Department, have decided to suspend the operation of the compulsory vaccination law pending a full inquiry into the whole subject.

That there is a definite **causal** association between vaccination and encephalitis is now officially admitted, and the fact that most of the cases arise about 9-12 days after vaccination is sufficient to rule out mere coincidence. The encephalitis (inflammation of the brain), whilst closely resembling encephalitis lethargica, or "sleepy sickness," is believed to be a distinct variety.

Many theories have been put forward as to the nature of the relationship, e.g., whether the encephalitis was brought about by the vaccine lymph itself, whether it was due to some germ which had accidentally gained access to the lymph, or whether the vaccination prepared the way for, or "activated," some extraneous germ. These theories are of undoubtedly scientific interest, and may give a clue as to how best to obviate the danger, but in the meantime, until the risk can be eliminated, the situation is obviously very unsatisfactory. Should the proportion of cases increase, it may be necessary for this country to follow the example of Holland and suspend compulsory vaccination.

It is, of course, a fact which has long been admitted, that the lymph used for vaccinating is not a sterile preparation. "Calf vaccine" is superior in this respect to the lymph obtained in the old days from "arm to arm," but no method hitherto employed has produced a lymph entirely free from extraneous germs whilst yet retaining its potency against smallpox.

The "neuro-vaccine" of Levaditi which has been tried in certain countries as a substitute for calf lymph is obtained by passing the virus through the rabbit instead of through the calf, and it was claimed to have certain advantages and to be almost if not entirely sterile. Now, however, the suggestion has been put forward from

an authoritative quarter that all existing strains of lymph should be "scrapped" and a new strain obtained entirely free from any strain which has passed through the rabbit.

In the meantime it is satisfactory to be able to report that no case of encephalitis has yet been reported in Leicester in which there was any reason whatever to suspect a connection with vaccination. It is true, of course, that the number of vaccinations performed in Leicester is so small that it would be rather unlikely that such an occurrence should arise in Leicester. Nevertheless, in connection with the recent epidemic of smallpox, as has been stated above, some hundreds of "contacts" were vaccinated, but nothing suggestive of encephalitis arose in any of them.

SCARLET FEVER.

Cases, 1,971. Deaths, 4. Case Mortality, 0.2 per cent.

Average for previous

5 years ... 556. ... 5. ... , 0.9 ...

Removed to Hospital, 952. Proportion removed, 48.2 ...

The year 1928 proved to be an epidemic year for scarlet fever and the number of cases notified was the highest for many years. Prevalence began to increase during the last quarter of 1927, as noted in last year's report. It continued high during the first two quarters of 1928, and then it increased still further reaching its maximum prevalence in September and October. After October it declined rapidly and became normal in the first quarter of 1929; since then it has fallen further still.

This epidemic prevalence in Leicester closely followed a similar increase in the disease for the country as a whole.

The following figures indicate the course of the epidemic:—

Notification of Scarlet Fever.

1927	3rd quarter	...	...	...	107
"	4th	...	...	...	367
1928	1st	...	...	...	406
"	2nd	...	...	...	415
"	3rd	...	...	...	552
"	4th	...	...	...	607
1929	1st	...	...	...	191
"	2nd	...	...	...	83

As was explained in the last report the Health Committee, acting upon a report issued by the Ministry of Health, decided in July, 1927, to reduce as far as practical the proportion of cases admitted to Groby Road Hospital.

New Treatment at Groby Road Hospital.

This decision was arrived at shortly before the onset of the epidemic, which as explained above was a reflection of an increased prevalence over the country generally. Owing to the new policy, the proportion of cases selected for admission to hospital was less than would otherwise have been the case, but nevertheless the pressure on the available accommodation at the Groby Road Hospital was abnormally heavy. Dr. Banks, Medical Superintendent, had, however, adopted a new method of treating the disease by the intravenous injection of anti-scarlatinal serum, and the results of this treatment were so satisfactory in cutting short the disease, preventing complications and minimising desquamation that he found it practicable to discharge patients after a much shorter stay there than would otherwise have been the case. In this way, of course, a given number of beds served for a much larger number of cases.

During the seven years, 1920-27, the average stay in hospital for scarlet fever cases was 42 days, varying from 46 in 1923 to 34 in 1924. In 1928, with the new treatment in force for seven months of the year, the average stay was only 24 days.

I am glad to be able to state that there is no reason to think that any spread of the disease resulted from this early discharge. The number of return cases recorded was only fifteen, which is only 1.5 per cent. of the patients discharged—a very low figure.

Full details of this special line of treatment will be found in Dr. Banks' report on the Isolation Hospital, Appendix II.

DIPHTHERIA.

Cases notified, 461. Deaths, 17. Case Mortality, 3.68 per cent.

Average for previous

5 years 319. . . . 25. . . . 7.8 . . .

Cases removed to hospital, 425. Proportion . . . 92.2 . . .

The number of fresh cases of diphtheria was 461, which is rather higher than the average. On the other hand the number of fatal cases, 17, is below the average, and I believe that this is largely to be attributed to the excellent results achieved by Dr.

Banks in the treatment of this disease by the intravenous injection of very large doses of anti-diphtheritic serum. This question was referred to at some length in the last report and details will be found in the Isolation Hospital Report, Appendix II.

School Outbreaks.

Early in the year a special incidence of the disease was noted in connection with Avenue Road Elementary School, which serves a very good class artizan district, and 17 cases—none of which, in a child of six years, unfortunately proved fatal—occurred during the first quarter.

A more serious and more prolonged outbreak occurred in connection with Medway Street School, which also serves a good class district. This outbreak may be considered as beginning in May, during which month five cases occurred. In June there were eight cases and eight also in July. In August, whilst the school was closed for the summer holidays, there were only three cases amongst the scholars, but the number quickly increased after the school was reopened, and during the first three weeks of September there were 16. By that time it had been decided, with the full concurrence of the School Medical Officer (Dr. Allan Warner) to close the school for three weeks, other measures having proved ineffective, and this took effect on September 21st. Four further cases occurred within the first six days after closure, which may well have been infected whilst the school was open, and then the number of fresh cases fell off. Only four cases occurred in October, three in November, and then the outbreak may be considered to have ended. An occasional case has occurred since, but this may happen in any school.

It is not often that we think it necessary or desirable to close schools in Leicester, as the result is often disappointing, but in this instance it apparently proved effective.

Importance of Early Treatment.

Once again the importance of early treatment in this disease must be emphasised.

Medical practitioners have repeatedly been urged where there is clinical evidence of diphtheria to send cases into hospital immediately (where hospital treatment is desired) or to administer serum themselves, and not to defer this because of a negative bacteriological report.

In August a circular letter was addressed to each medical practitioner stressing these points.

TYPHOID FEVER.

Cases, 6. Deaths, 0.

Only six cases of this disease were notified, two being from one house, but with this exception there appeared to be no connection between any of the cases. All were in adults and all occurred in the last five months of the year. One of the cases was in a patient at the City Mental Hospital, who had been going home for week-ends. No spread occurred. All the cases recovered.

DIARRHŒA AND ENTERITIS.

There were 50 deaths attributed to this cause, which is about an average figure. There is nothing fresh to write about this cause of death, which at one time had so serious an effect upon infant mortality in Leicester.

MEASLES AND WHOOPING COUGH.

Only one death was attributed to measles during the year under review which is remarkable as there was a certain amount of the disease present during most of the twelve months. It is four years now since a serious epidemic of measles occurred, viz., in 1925. During the present year, 1929, the disease is prevalent but not very fatal.

As was pointed out in the last report, the deaths from measles have shown a tendency towards reduction during recent years, so that another favourable year is all the more satisfactory.

Whooping Cough caused seven deaths which is much below the average. Measles and Whooping Cough are apt to occur together, and the conjunction is apt to be very serious. Whooping Cough unfortunately has not shown the same tendency towards improvement as measles has done.

ENCEPHALITIS LETHARGICA.

Cases notified, 7. Deaths, 3.

Encephalitis is not only very fatal, but, which is perhaps even worse, it leaves a large proportion of those who recover with permanently impaired mental faculties. Some of these cases are very distressing. The unfortunate victims may live for years, a burden to their friends and to themselves. Sometimes the moral sense is affected and the unhappy sufferers may get into serious trouble. Fortunately, it continues to be a rare complaint, and the figures for the year were below the average.

Reference has been made above to post-vaccinal encephalitis under the head of Vaccination.

POLIOMYELITIS (INFANTILE PARALYSIS).

Cases notified, 8. Deaths, 0.

Happily there has been no recurrence of the serious outbreak of this disastrous disease since 1926, when 81 cases occurred. Of the eight cases reported in 1928, several were of a doubtful nature.

The cases which occurred in the 1926 epidemic were visited during the year. Improvement was still reported to be occurring in some of the cases, but in a good many the paralysed condition appeared to have come more or less permanent and it is to be feared the poor little sufferers will grow up as cripples. Many of the cases which occurred in 1926 are still, nearly three years afterwards, attending the orthopaedic department at the Royal Infirmary as out-patients two or three times a week.

PNEUMONIA.

This serious cause of death was responsible for 187 deaths as compared with 196 in the previous year, and with an average of 216 in the eleven previous years.

Little is known about the etiology of this disease. It is a common cause of death in the old and feeble and—in the form of broncho-pneumonia—also in the very young. It may, however, and not infrequently does, attack adults in the prime of life and apparently in good health.

It is one of the dangers to life which all have to reckon with.

PUERPERAL FEVER AND Puerperal PYREXIA.

Total cases, 55. Total deaths, 7.

Forty-five cases were notified as puerperal pyrexia and ten as puerperal fever, making a total of 55. Some of the former group probably developed afterwards into puerperal fever but were not re-notified. Eight of these cases proved fatal, but one was due to tubercular peritonitis and therefore the death can be accounted for apart from child-birth, leaving a total of seven deaths.

17 of the cases occurred in maternity institutions (16 in public and 1 in private homes), and the remainder in cases confined at home.

Under the Puerperal Fever and Puerperal Pyrexia Regulations, 1926, practitioners may when notifying ask for certain assistance on behalf of cases. Not very much advantage is taken of this.

Amongst the 55 cases:

- (1) A second opinion was asked for only twice.
- (2) A bacteriological examination was asked for once.
- (3) 16 cases were removed to hospital, but this is usually arranged independently.
- (4) Nurses are obtained independently from the District Nurses' Association.

Puerperal sepsis is referred to again under the heading of Maternal Mortality.

OPHTHALMIA IN NEW-BORN INFANTS.

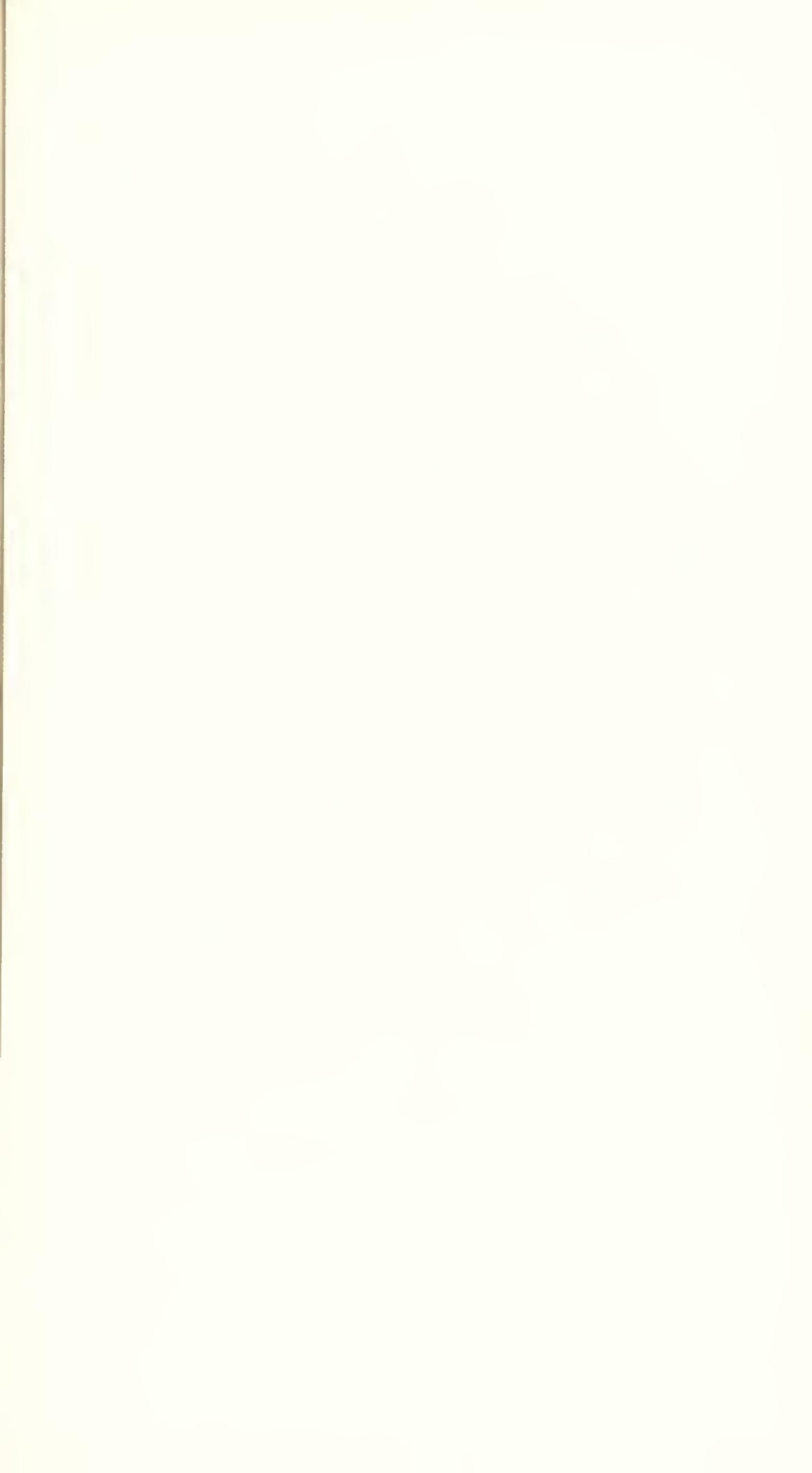
During the year 24 cases were notified, but one of these was in the county and was handed over. Three cases left the town, one case died, and the remaining 19 all cleared up without injury to sight.

RHEUMATIC AFFECTIONS.

Probably the most important group of diseases which Public Health Authorities will next be called upon to deal with is that of the rheumatic affections. Our ideas as to the true nature and pathology of this group, whilst still unfortunately lamentably incomplete, has undergone considerable modification in recent years. Hitherto, "rheumatism" has not been generally regarded as properly coming within the sphere of a Public Health Authority. It may very well be that before long we shall regard it as just as much a social disease as, say, Tuberculosis.

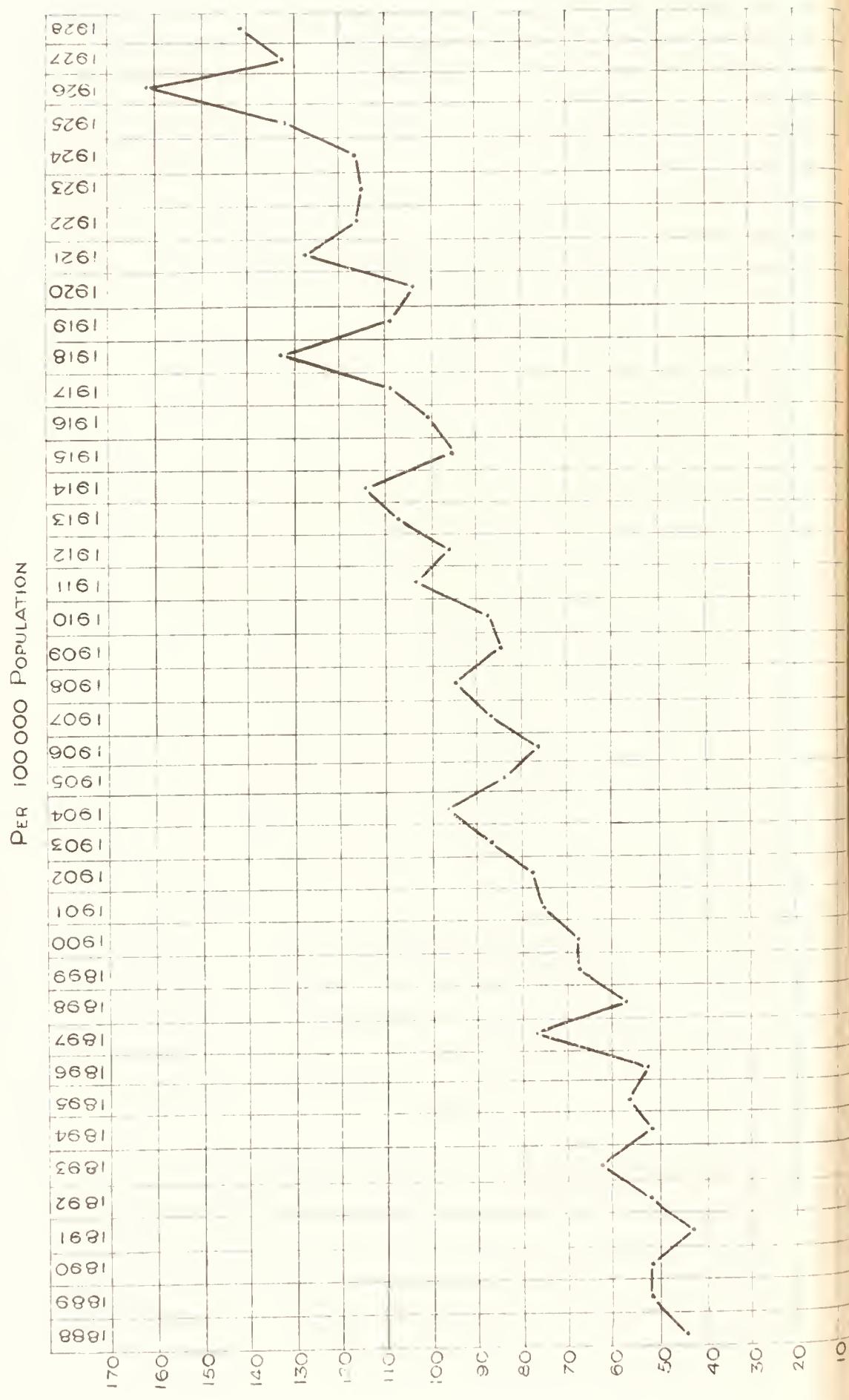
As to the damage to the Nation's health caused by "rheumatism" there is no question. The number of deaths directly attributed to it is negligible, but the number of deaths **indirectly** caused by it, chiefly through its damaging effect on the heart, is very great. Last year 456 deaths in Leicester were certified as due to "heart disease." Moreover, the amount of illness, acute and chronic, caused by heart disease is truly terrible.

The Ministry of Health issued last year a special report on "Chronic Arthritis," and a movement is now coming into being for the establishment of special Arthritis Clinics specially equipped and staffed to deal with this group of affections.



GRAPH III

CANCER DEATH RATES IN LEICESTER 1888 - 1928



TUBERCULOSIS.

The number of fresh cases notified and deaths registered during 1928 was as follows :—

	Cases.	Deaths.
Pulmonary tuberculosis (phthisis)	668	265
Other forms	117	42
	—	—
	785	307
	—	—

The corresponding totals for the previous year were 780 and 346.

The cases notified show a slight increase but, which is of chief importance, the number of deaths shows a distinct decline.

The subject of tuberculosis is dealt with fully in the report of the Tuberculosis Officer (Dr. W. S. Thomson) in Appendix I. which will repay study, and further reference here is therefore unnecessary.

CANCER.

The deaths from cancer (including in that term all forms of malignant disease) numbered 349, of which 158 were in males and 191 were in females. This is 25 more than in 1927 and, with the exception of the year 1926—when the number was 395, it is the highest recorded. The cancer mortality was 1.42 per 1,000.

The accompanying graph, No. III., shows the position at a glance.

In Leicester the cancer mortality in females continues to be distinctly higher than in males, but in England and Wales, according to the Registrar General's report, the male mortality is overtaking the mortality in females.

Radium and Cancer.

During the year the Ministry of Health have issued a report on the use of radium in the treatment of cancer, which indicates the good results which it is possible to get in suitable cases, especially if begun in an early stage. Even in more advanced cases marked improvement lasting for several years may be obtained.

It is satisfactory to know that the Leicester Royal Infirmary now has a supply of radium (250 m.g.), and the honorary surgical staff report very encouraging results.

CANCER CONTROL CLINIC.

The Leicester Cancer Control Clinic being practically the only one in the country is of special interest as a pioneer movement and in view of the magnitude of the evil against which it is directed.

It was started in July, 1927, and has therefore been in operation about two years. The Honorary Surgical Staff at the Leicester Royal Infirmary take it in turns to attend. The object is early diagnosis, not treatment. Different methods of making the clinic known have been tried, but by far the best is the display of notices of the Clinic in the Corporation Trans once a week. Many cases were referred to the Clinic for an opinion by medical practitioners.

Hitherto it has been restricted to women and to affections of the breast and uterus. It has now been decided to extend the scope of the Clinic to all forms of cancer in either sex.

In the first 22 months there were 88 clinic sessions and 193 patients attended, of which 11 were found to be suffering from cancer. The numbers are not so large as was hoped and expected. The extension of the scope of the Clinic should help to rectify this.

VENEREAL DISEASE.

This subject was dealt with fully in the last report and there is very little to add to what was then written.

The number of fresh cases from the City dealt with at the V.D. Clinics was as follows :—

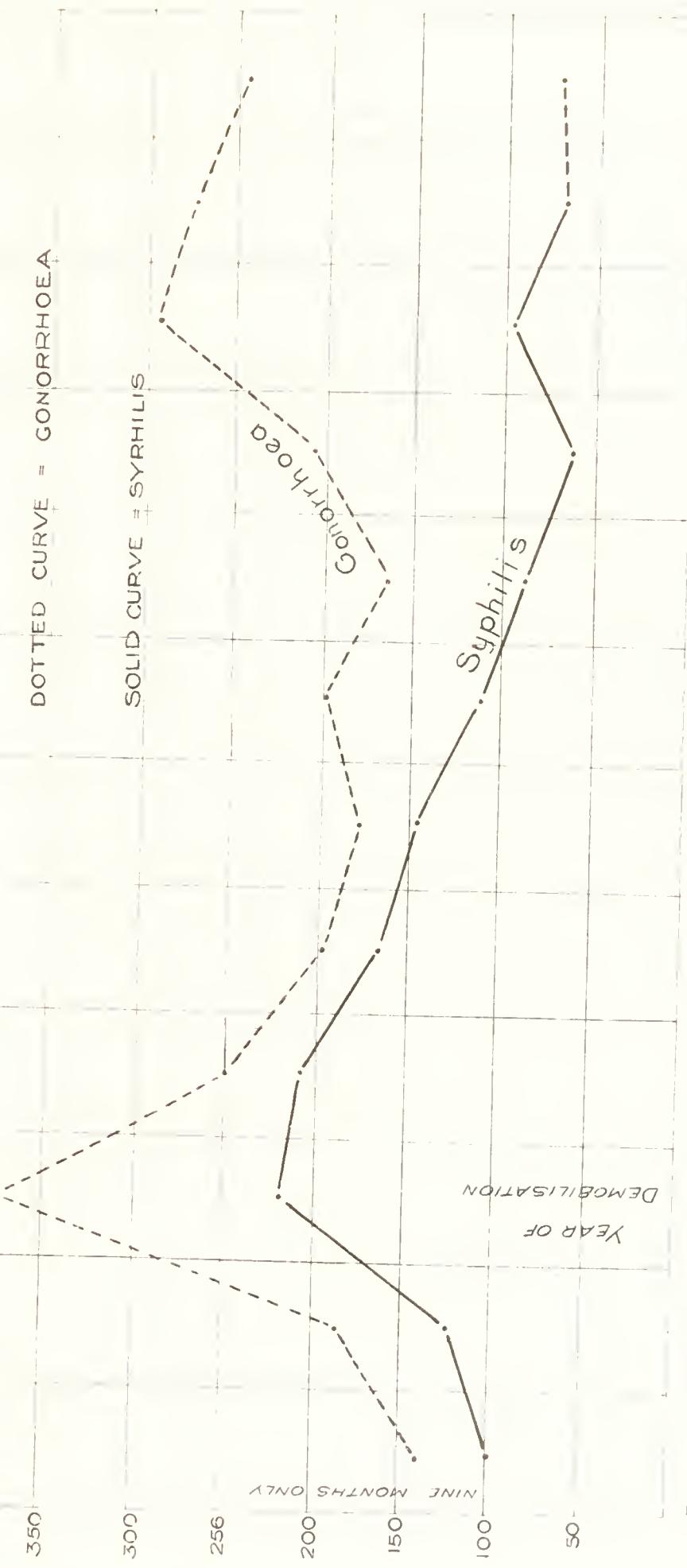
			Syphilis.	Gonorrhœa.
Males	..	..	71	246
Females	..	..	104	136
			—	—
			175	382

The position as regards previous years is shown at a glance on the accompanying graph whilst the detailed figures will be found in Table 13.

From this it will be seen that whilst in males the figures show little material change, there has been some apparent increase in females as regards both syphilis and gonorrhœa. With the latter disease, indeed the figures are the highest hitherto recorded. It must be pointed out, however, that the figures only represent the number of fresh women presenting themselves at the Clinic. Very many cases do not come forward for treatment at all, whilst others go to their own private medical attendant. Any apparent increase therefore may only be an indication of the Clinic becoming more popular.

NEW CASES IN MALES (CITY ONLY)

1917 - 1928

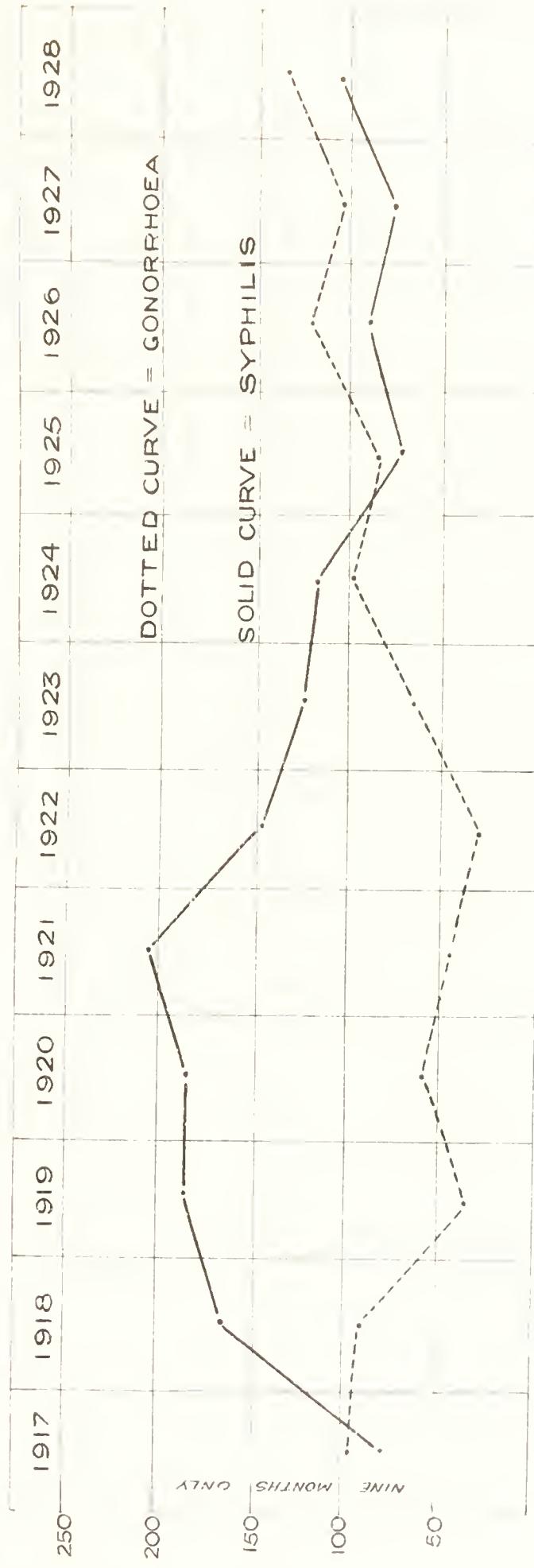


The increase in Venereal Disease in Males in 1919 which accompanied Demobilisation after the War was very marked. This was followed by a steady decline for several years. Since 1924 gonorrhoea has increased but the number of new cases is only the number coming forward for treatment and not the number actually occurring of which we have no official record.

VENEREEAL DISEASES

NEW CASES IN FEMALES (CITY ONLY)

Royal Infirmary Clinic
1917 - 1928



The curves for Venereal Diseases in Females are very different from those in Males. The number shown as new cases is only the number coming forward for treatment and not the number actually occurring, of which we have no official record. The apparent increase since 1925 can partly be accounted by a difference in classification.

The reports of Major Blakesley and Dr. Bessie Symington will be found in Appendix V., also the report on St. Mary's Home Treatment Centre.

V.D. Propaganda.

No very special efforts have been made during the year in the matter of propaganda. The whole question is a very difficult one and opinion is divided—often acutely so—as to the best method of attack.

Ordinary addresses and lectures fail because one cannot reach the class most needing to be reached. It is true that this objection does not apply to the showing of special V.D. films—one can get large audiences of the right kind—but it is difficult to get agreement on the showing of films dealing with sex subjects. Advertisements in the public press are also open to objection.

There remains one method which certainly does reach the mass of the people so far as it goes, and is not open to the same objection, and that is the display of special V.D. notices in public conveniences. Here they are seen by the one sex, in each case, for whom they are intended.

A new form of notice was issued by the Health Committee during the year and put up in the public conveniences in the city. Private firms were also approached, and where these were willing the notices were put up in the lavatories for either sex in factories. The notices, which are those drafted up by the British Social Hygiene Council for the purpose, and obtained through that body, are printed on permanent enamel plaques and, after referring to the dangers of V.D. and the importance of efficient treatment, give the addresses and times for attendance at the local V.D. Clinics.

SCABIES (ITCH).

Provision is made at the Health Offices for the free treatment of this unpleasant and contagious affection. During the year 44 cases were dealt with, ten being adults and the remainder children.

This is some increase on the previous year.

The treatment given is by bathing followed by the application of ointment (Marcussen's, containing a special preparation of sulphur). This work is done by Mrs. Bottner under the supervision of the M.O.H.

PART III.

Maternity and Child Welfare.

The statutory Maternity and Child Welfare Committee (appointed under the provisions of the Maternity and Child Welfare Act) consists, in Leicester, of the full Health Committee, together with four co-opted women members. In practice the work is carried out by a Sub-Committee consisting of ten members of the Health Committee, together with the co-opted members. When the minutes of this Sub-Committee are submitted to the Health Committee for confirmation, the co-opted members are invited to be present.

It will be convenient to refer to the work of the Department under the same heads as in previous reports, viz. :—

1. Health Visitors.
2. School for Mothers.
3. Infant Clinics.
4. Ante-natal Clinics.
5. Infants' Milk Depot.
6. Maternity Home.
7. Day Nursery.
8. Assistance in Necessitous Maternity Cases.

1.—Health Visitors.

These are thirteen in number, and their names are set out on p. iii. Mrs. Reed continues as Superintendent Health Visitor.

The work accomplished by the Health Visitors, so far as it can be expressed statistically, is set out below, but as has been pointed out in previous reports, it is quality rather than quantity which really tells in work of this kind.

Work done by Health Visitors during 1928.

Visits to Births (first visits)	3,660
Re-visits to Births	16,593
Visits to Ophthalmia cases	92
,,,, Ante-natal cases	833
,,,, Children, 1-5 years	1,123
Other visits	4,032
Attendances of Health Visitors at Schools for Mothers	856
Attendances of Health Visitors at Ante-natal Clinics	50

Each Health Visitor is attached to one or more Schools for Mothers, and also has a district which, as far as possible, is in the neighbourhood of her school.

2.—Schools for Mothers.

There are now fifteen of these in Leicester. No new school was opened during the year. A complete list of the schools is set out below.

Name.	President.	Day of Meeting.
Western Road	Mrs. Beale	Monday
Curzon Street	Mrs. Turner	,,
Clipstone Street	Mrs. Banks	,,
Aylestone Road	Miss Windley	Tuesday
Bedford Street	Mrs. Millard	,,
Wellington Street	Mrs. Catlow	,,
Wesley Hall	Mrs. Taylor	,,
Cavendish Road	Mrs. Johnson	,,
Justice Street	(Miss Went) (Mrs. Bouskell)	Wednesday
Uppingham Road	Mrs. Swainston	,,
Fosse Road	Mrs. Gibbs	,,
Coleman Road	Mrs. Herbert	,,
Belgrave Hall	Mrs. Mantle	Thursday
Clarendon Park	Miss Partridge	,,
*Highcross Street Centre	Mrs Viccars	,,

The total number of School meetings during the year was 692, and the total attendances of Mothers was 38,083.

*This School differs from the others in that the premises are permanently rented by the Corporation and are available every day of the week.

3.—Infant Clinics.

An Infant Clinic is held at each School for Mothers once a week. A medical practitioner attends, and any mother attending the schools may consult the doctor about her baby or herself, free of charge, if needing advice. Infant Clinics are held also at the Infants' Milk Depot (twice a week).

During the year the total number of sessions of the clinics in connection with the schools for Mothers was 690, and the total attendances of infants was 9,000. In addition, 98 clinic sessions were held at the Milk Depot, the number of attendances being 1,246.

4.—Ante-natal Clinics.

These are special clinics for expectant mothers, and their importance is now fully recognised. Ante-natal clinics are held at the Infants' Milk Depot, the Higherross Street Centre, and the Maternity Home, Westcotes Drive. The latter clinic is chiefly attended by women who have booked for confinement at that institution and is held twice a week.

The number of Ante-natal Clinics and attendances in 1928 was as follows:—

	No. of Sessions.	No. of Attendances.		
		New Cases.	Old Cases.	
Milk Depot ..	44	..	129	..
Maternity Home ..	96	..	433	..
Higherross Street ..	47	..	136	..
 Total ..	 187	 ..	 698	 ..
				1,410

5.—Infants' Milk Depot.

The Infants' Milk Depot in Belgrave Gate was opened in 1906, at a time when comparatively little attention was paid to infant welfare. It continues to accomplish much useful work not only as a depot for the distribution of dried milk, but as an infant welfare centre where clinics are held and much good advice to mothers is given. The dried milk sold is chiefly manufactured by the "Hatimaker" process, though some "spray process" milk is also supplied. Mrs. Stanyon, the Manageress, has been in charge ever since the Depot was first opened, and she continues to do admirable work in giving sympathetic and helpful advice to the many mothers who consult her.

The number of fresh cases of infants brought to the Depot during 1928 was 700, as compared with 629 in the previous year.

Infant Consultations are held at the Depot twice a week, the total number of sessions during the year being 98, and the total attendances 1,246 (as compared with 1,358, 1,351, 1,158 and 1,151 in the four previous years), the average attendance being 12.7. In addition, there was an attendance of 5,653 infants brought to be weighed, apart from the clinics.

Finance (Table 20).

During the financial year ending March 31st, 1929, the total payments amounted to £3,186, and the total receipts to £3,315, showing a profit of £128. In the previous year there was a deficit of £117 13s. 5d.

6.—Maternity Home.

The Municipal Maternity Home, situated in Westcotes Drive, was opened in August, 1920, having been converted from a large private mansion, which was acquired for the purpose. It stands in its own beautiful grounds and is away from noisy traffic. It provides accommodation for 26 beds together with one isolation bed.

The number of confinements each year has been as follows:—

1920	(five months only)	..	139
1921	..	..	339
1922	..	..	345
1923	..	..	394
1924	..	..	444
1925	..	..	438
1926	..	..	455
1927	..	..	445
1928	..	..	515

It will be seen that the number of cases admitted in 1928 was the highest since the Institution was opened, and on several occasions the number in the Home exceeded the number of statutory beds. It was occasionally necessary to decline to book cases. As, however, we are still admitting cases from outside the city it cannot yet be said that the Home is inadequate for the needs of the city. During the year 83 of the cases admitted were from outside the city area, though 16 of these were from the Corporation housing estates beyond the city boundary.

A Tabular Statement of the work done at the Home is given in Table 17, and a financial statement in Table 18.

7.—Day Nursery.

The Day Nursery in St. Martin's, to which the work of the two old day nurseries was transferred in February, 1923, continues to do useful work in looking after infants and young children whose mothers are obliged to go to work, and who would otherwise find it difficult to find satisfactory persons to look after them in their absence.

The present premises, formerly St. Martin's Vicarage, are admirably suited for the purpose. Not only are the rooms light and airy, with good accommodation for the staff, but the old vicarage garden makes an ideal playground for the toddlers and airing ground for the infants. The provision of a good sandpit has proved a never-ending source of open-air amusement for the youngsters.

The Corporation took over the work of the Leicester Day Nursery Society in July, 1920.

Attendances.

The Day Nursery was open during the year for 253 full days and for 50 half-days (Saturdays). The total full-day attendances were 10,034, and half-day attendances, 2,489. Converting the half-days into full days, we get a total average full-day attendance of 40. The corresponding figure for the previous year was 43.

Teaching in Mothercraft.

The arrangement with the Education Committee for the teaching of mothercraft to school girls continues and may be regarded as pioneer work in this direction. During the year 162 girls attended, coming from the following schools:—Elbow Lane, King Richard's Road, St. George's, All Saints', Holy Trinity, and St. Mary's. The girls come in batches (eight being the maximum number), one batch attending in the morning and one in the afternoon, and each batch attends for four weeks. The total attendances of school girls was 2,788, and the daily average, 14.5.

8.—Assistance in Necessitous Cases.

A Special Sub-Committee, of which Mrs. Cooper is Chairman, meets each week to consider applications for Necessitous Maternity Cases. Every application has to be made in writing on a special form which has been carefully drawn up for the purpose, and which has been modified from time to time as experience has suggested. In this form, signed by the applicant, a full statement has to be made of all sources of income, together with many other particulars such as rent, number of children to be provided for, &c.

The statements made in the application form are frequently checked by reference to the employer, Board of Guardians, &c., in order, as far as possible, to verify their accuracy.

The following figures show the amount of assistance given during the year:—

Milk granted in 229 new cases and 1,002 old cases (repeated).
6,782 gallons of milk were granted free.

In 123 cases 631 packets of dried milk were granted free.

76 cases were admitted to Day Nursery at reduced rate.

6 „ „ „ „ „ Maternity Home at reduced rate.

Doctors' fees remitted in 24 cases.

Midwives' fee allowed in 20 cases and half fees in 8 cases.

3 cases were assisted with Home Help

No action was taken in 87 cases.

Maternity and Child Welfare Dental Clinic

This was started in November, 1924, and is open to nursing and expectant mothers and children under five years. The figures show an increase upon the previous years.

The following are the figures for 1928:—

42 Clinic Sessions were held

108 New cases attended

89 Cases completed treatment

395 Attendances were made

23 Dentures supplied.

10 „ repaired

250 Extractions of Permanent Teeth

58 Extractions of Temporary Teeth

124 Local Anaesthetics given

1 Case received gas

35 Fillings made.

7 Scalings done.

144 Prosthetic and other Dressings made

The Clinic is held in connection with the School Dental Service, one of the School Dentists giving a half-day a week to seeing patients referred to him from the Maternity and Child Welfare Department. We pay the Education Department for the services rendered according to agreement, the payment covering salary of dentist, appliances, material, &c. Dentures are made by outside dental artificers, but are, of course, fitted by the dentist at the clinic.

Charges are calculated on the basis agreed upon by the Dental Profession for patients insured under the National Health Insurance Act, sometimes referred to as the "Panel Scale." The patient pays half the charge and the balance, representing the difference between patients' payments and cost of the clinic, falls on the Maternity and Child Welfare Committee.

This arrangement has been found to work well. Last year the total cost of the Maternity and Child Welfare Dental Clinic was £163 4s. 9d. Payments received from patients amounted to £49 3s. 3d., showing a deficit of £114 1s. 6d.

As only one session per week is devoted to Maternity and Child Welfare work, and the number of patients per session being necessarily limited, the number of patients has also to be limited.

This work is so important that it may soon be desirable to try and arrange for the dentist to devote more time to it.

Patients are selected for the Dental Clinic by the medical officers attending the Ante-natal and Infant Welfare Clinics.

Midwives and Maternity Homes Act, 1926.

There are 24 Registered Nursing and Maternity Homes in the City. These have been inspected during the year by Dr. Dent, and, speaking generally, they have been found to be satisfactory.

Midwives, Inspection of.

Dr. Dent also reports that regular inspection of the midwives has been carried out. The revised Rules of the Central Midwives Board for 1927 require midwives to keep records of ante-natal work, in a prescribed manner. This has increased the work and responsibility of midwives.

MATERNAL MORTALITY.

During the year there were nine deaths registered as due to puerperal sepsis and six due to "other accidents and diseases of pregnancy and parturition" making a total of 15, as compared with 16 in the previous year. As the gross number of births registered was 4,216 (corrected number was 3,988, but for this purpose

the gross number is the figure to be taken), this gives a puerperal sepsis rate of 2.1 per 1,000 births, and a gross maternal mortality rate of 3.5, as compared with 4.0 in 1927. The figure for England and Wales for 1927, the last year available, was 5.4, so that the figure for Leicester is very favourable.

The following are some particulars concerning the individual deaths. Of the puerperal sepsis cases, one was a case in a girl of 16 -abortion following improper interference; and two were cases of ordinary miscarriage. Of the remaining six, two were in connection with a lying-in institution, and four occurred in confinement cases at their own homes.

Of the other accidents of child birth, two were cases of pleurisy or pneumonia, one was a case of eclampsia and cæsarian section, one intestinal obstruction, one heart failure, and one uræmia.

Much has been written in recent years about the high rate of maternal mortality. Deaths in connection with child birth are necessarily very deplorable and every effort should and must be made to reduce them to the lowest possible limit; but a consideration of the brief particulars given above will indicate that a considerable proportion of these cases must be regarded as largely unpreventable in the present state of our knowledge. Further, it must be admitted that the ordeal of child birth is necessarily a very serious crisis, involving profound interference with the natural functions which will sometimes, even under the most favourable conditions, "go wrong." Even amongst wild animals in perfect health nature is by no means always able to meet the crisis successfully; consequently it is not surprising that in human beings, living under artificial conditions and often in indifferent health (constipation, anæmia, carious teeth, sometimes the subject of constitutional disease, e.g., tuberculosis, cardiac or kidney disease), a certain number should succumb when passing through this ordeal. The fact that out of (approximately) 4,000 women who went through the ordeal of child-birth in Leicester last year only 10 (if we deduct the deaths from miscarriage, pleurisy and pneumonia) lost their lives as the result of that ordeal is a cause for satisfaction rather than despondency.

MIDWIFERY LECTURES FOR PUPIL MIDWIVES.

As mentioned in the last report, the new arrangement as regards the provision of lectures to pupil midwives in Leicester came into operation during the year 1928. Hitherto there were three institutions recognised by the Central Midwives' Board as training schools for pupil midwives in Leicester, namely the

Municipal Maternity Home, the Leicester and Leicestershire Maternity Hospital in Causeway Lane, and the North Evington Infirmary (Poor Law) in Gwendolen Road. The C.M.B., however, decided that it was desirable that the three separate courses should be combined into one course which the pupils from the different institutions should be called upon to attend, the lectures being divided between the Medical Officers attached to the respective institutions.

Each of the three authorities responsible, as well as the lecturers themselves, were all opposed to the new arrangement and did their best to prevail upon the C.M.B. to give way. The latter, however, were adamant. The Ministry of Health were appealed to but said that the training of midwives was a matter for the C.M.B. and that they could not interfere. Ultimately, the two first mentioned institutions decided that they must comply with the C.M.B. wishes and agreed to form a combined course, but the North Evington Infirmary authorities, who would be the most inconvenienced by the suggested new arrangement, owing to the distance their nurses would have to come to attend the lectures, declined to fall into line and made arrangements to send their nurses away to get their Midwifery training. (July, 1929. They have now decided to fall into line.)

Arrangement with the University College.

The arrangement which was ultimately come to was made possible by the co-operation of the University College. A special committee was appointed by that body composed of representatives of the College, of the two institutions mentioned, together with the Medical Officers of the two institutions. Dr. Astley Clarke, a member of the College Board of Governors, was appointed Chairman, and the Medical Officer of Health was appointed Honorary Secretary.

Income is derived from the fees of the pupils attending the courses and out of the funds so obtained all expenses, including lecturers' fees, have to be paid.

The University College made it a condition that under no circumstances would they be responsible for any expense.

Two courses, each of 30 lectures, are held each year, half being given at the one institution and half at the other. The curriculum is divided into two halves, each of the two lecturers taking a half. One lecture at the close of each course, dealing with the relationship of the midwife to the local supervising authority, is given by the M.O.H.

The new scheme has now been in operation for twelve months.

PART IV.

Administrative and General.

HOUSING OF THE WORKING CLASSES.

The housing question, though less acute than was the case a few years ago, is still very far from having been satisfactorily solved.

During the year 1,591 new houses have been erected, viz., 1,004 by private enterprise and 587 by the Corporation. This is a big reduction on the previous year.

The figures for the past eight years are shown in the following table.

Number of Houses Erected.

	By Private Enterprise.	By Corporation.		Total.
		Without Subsidy.	With Subsidy.	
1921	..	21	87	392
1922	..	114	—	260
1923	..	135	—	84
1924	..	336	70	114
1925	..	298	239	513
1926	..	374	303	1036
1927	..	726	265	1590
1928	..	481	523	587
	—	—	—	—
Total for 8 years	2485	1487	4576	8548
	—	—	—	—

Overcrowding.

The Housing Committee of the Corporation have done a great work in building houses for the working class, and these houses are rightly of a standard far superior to what would have been considered satisfactory before the War. Unfortunately, they have done but little to benefit the lowest section of the community who are just the class most in need of relief so far as overcrowding is concerned.

Gross cases of overcrowding still keep coming to the knowledge of the Health Department. A few illustrative cases may be quoted.

1. F.J.—, Cottages, Curzon Street.

Man, wife and nine children, ages ranging from 21 years to 12 months, occupy a four-roomed house. The parents and two of the children occupy one bedroom, and six other children sleep in one other bedroom which has two beds. Four boys, aged 16, 14, 8 and 5, and a girl of 13, sleep in one bed, and the eldest son in the other bed. The remaining son, age 19, sleeps downstairs.

Let us try to picture the conditions here revealed. Eleven persons, five of them adults, living in this little cottage, five of them in one bed. What possible privacy can there be, or what chance of any standard of refinement !

The father, who served his country in the Army during the War, earns about 50s. a week, and the elder children are going to work, but the margin available for house rent after insurance, food and clothing and fuel have been paid for must be a very narrow one. But even if he could afford the rent of a larger house, no one wants a family with nine children. The Housing Committee say they have no houses large enough. Health Visitor reports that the house is kept very clean under the circumstances.

2. M.J.—, Cromwell Street.

Man, wife and seven children are living in a three-roomed house, living-room, tiny kitchen and one bedroom. The ages of the children are :—boys, 14, 12, 11, 8 and 5 ; girls, 6 and 3. Mother again “expecting.” Husband was wounded during the War and has a pension. Works as a shoe hand. Eldest boy of 14 has started work. These people would much like a larger house, which they sadly need, but say that they are unable to afford a larger rent as it would mean less food for the children.

Clearly a Corporation house is out of the question unless granted at a special rent.

3. S.E.—, Cradock Street.

Man, wife and seven children, all under 11 years, occupy a four-roomed house. The man is in failing health and wife states that he has not done a full twelve months' work since they were married. Wife also in poor health and has been to Groby Road Sanatorium as an “observation” case.

4. C.E.—, Fairfax Street

Man, wife and eight children occupy a four-roomed house. Ages of children :—boys, 17, 15, 8 and 5; girls, 14, 12, 4 and 3. Very unsatisfactory mixing of the sexes is reported in this case, and this is inevitable with such a family and only two bedrooms. Man was wounded during the War and has a pension, but even if he were able and willing to pay the rent of a Corporation house, the Housing Committee do not cater for extra large families.

5. S.J.—, Surrey Street.

Man, wife and five children, 10, 7, 6, 4 and 4 months, are living in a caravan. Mrs. S. states that they have tried hard to get a house but have failed. She seems a decent woman and says that it is not right for the children to be brought up as they are. (This case has since got a house.)

6. H.—, Neal Street.

Man, wife and five children occupying one room. Health Visitor reports :—“The condition under which these people live is deplorable. The mother does her best in their adverse circumstances. Father is unreliable and not recommended.” Housing Committee naturally will not consider a case like this. Nor will a private house owner if he studies his own interests. Yet in the interests of the children the Health Committee, whose duty it is to prevent overcrowding, ought to devise some procedure by which such a case could be dealt with.

This list could, of course, be greatly extended.

Some of the above cases may not to-day be in the circumstances stated, but they could be replaced by others equally bad.

The Remedy.

Nor is it to be thought that overcrowding is specially bad in Leicester. Doubtless most cities are equally bad or worse. The fact is, and it has got to be faced, that municipal housing schemes, excellent though they may be, do not help the “submerged tenth,” or only very indirectly and to a very small extent. The question is largely one of poverty, complicated by fecundity, the two factors being largely interdependent. It cannot be solved on economic lines, but then no municipal housing schemes are economic, so that no new principle is thereby involved. The community has got to come to the rescue in the interest of the community, because a social sore such as we are considering is prejudicial to the whole body politic.

“A Policy for the Slums.

The problem is not in any way peculiar to Leicester. The Housing and Town Planning Council of Great Britain recently appointed a Special Committee to go into the whole question and report. This report, which is a very valuable one, has now been published under the title of “A Policy for the Slums.” The conclusion the Report comes to is this :—

1. That although over a million houses have been built since the War, the pressure of overcrowding in the slums has been little if at all relieved.

2. There are probably in England and Wales over a million houses below a satisfactory standard and two million houses which are seriously overcrowded. To remedy these conditions at least a million new working-class houses (figures only an estimate) are immediately needed.

3. At least 90 per cent. of those who live in the slums could be relied on to make good tenants if they had decent houses at rents which they could afford to pay.

4. Only 6,000 houses have been pulled down under Slum Clearance Schemes during the last $3\frac{3}{4}$ years.

5. The right approach to the problem is not to regard it as a problem of clearance or destruction but as one of construction. **The evacuation and effective abolition of slums depends on the provision of adequate numbers of houses at rents which the working classes can pay**

26. The lowest economic rent (after deducting subsidy) of the minimum standard house is about 11s. a week inclusive of rates

27. While the artizan can generally pay 11s. the unskilled labourer with dependants cannot afford to pay more than about 7s.

The Report then goes on to advocate a **Children Rent Allowance Scheme**, based upon the number of dependants and the family income, and a suggested scale is submitted. Such a scheme would enable those most in need of houses to leave the slums. Need, rather than ability to pay, would then be the deciding factor in allocating Corporation houses. Some such scheme as this appears to me to be the only way in which we shall solve the problem of the slums.

I would insist that it is not the number of houses built but the amount of real overcrowding relieved which should be the criterion of success in municipal housing schemes.

To build houses and let them (usually at less than an economic rent) to people with small families, who in many cases do not need helping and could well afford to pay an economic rent, whilst at the same time refusing to help those families who are most overcrowded and who really do need helping, by not offering them houses at a rent which they can pay, seems a wrong policy. From the point of view of the public health it is eminently unsatisfactory.

Action on the lines suggested need not entail much, if any, extra burden on the ratepayer. Already large sums of public money are being spent on housing. It is merely a question of modification of policy so that some of this expenditure shall help the "bottom dog," who at present is missed out.

SLUM CLEARANCE SCHEME.

THE GREEN STREET—SANDACRE STREET AREA.

The question of slum clearance engaged the earnest attention of the Health Committee during the year, and your Medical Officer of Health and Chief Sanitary Inspector visited a number of other cities where slum clearance schemes were in progress and special reports were made. Certain of the worst areas in the city were considered and reported upon and ultimately one of these—which may be referred to as the Green Street—Sandacre Street Area—was selected as the one to be dealt with first.

This area is situated in St. Margaret's Ward, on the North-West side of Belgrave Gate. It covers just over three acres, and contains 232 dwelling houses, besides other buildings which include four common lodging houses, and has a population of 960, 236 of whom are children under ten years.

The worst features of this area are the old, worn out and generally dilapidated condition of most of the houses—many of which are without "through" ventilation—the congestion of houses on the area (density of population 283 per acre), and the narrowness and bad layout of the streets.

A formal representation was made that this was an unhealthy area under Section 35 of the Housing Act, 1925, and the Town Council, on the recommendation of the Health Committee, decided to make an improvement scheme for the area.

Meanwhile the Chief Sanitary Inspector (Mr. McHugh) assisted by certain of the District Inspectors (Mr. Beever and Mr. Elkington), spent much time and labour in getting out the necessary particulars for the scheme, a much bigger matter than the initiated can have any idea of. The draft scheme is now in the hands of the Town Clerk and City Surveyor in order that the formal scheme may be completed and sent to the Ministry of Health, who will then hold a local inquiry. When the Scheme is finally sanctioned it will be necessary to provide alternative accommodation for the occupiers who will be displaced, before any demolition of houses can take place. It will clearly be a long time before the scheme becomes an accomplished fact, but in the meanwhile something is being done, or at least attempted, to remedy this great evil.

It is well, however, to utter a word of warning in connection with this subject of slum clearance. All right-minded people are anxious to see our slums abolished, but the demolition of slums is only part of the real problem. The real desideratum is the better housing of the unfortunate people living in the slums. The criterion of success of any slum clearance scheme should be **the proportion of the population of the area cleared who have been permanently housed under satisfactory conditions.** Judged by this standard, it has to be admitted that many if not most slum clearance schemes hitherto have been comparative failures. They have been very costly and they have achieved comparatively little. They may even do more harm than good, by increasing the congestion in neighbouring areas. It is sincerely to be hoped that Leicester's first experiment in slum clearance will be a success in this vital matter of re-housing the displaced tenants, but success can only be achieved if the new houses to be built are offered to the displaced tenants **at rents which they can reasonably be expected to pay.**

Two versus Three-bedroomed Houses.

A question which will need to be settled when the new houses to accommodate the displaced tenants come to be built will be the size of house and the number of rooms. This is rather a vexed question, as there are two different points of view. The Housing Committee have had to face it in connection with their schemes of house building. The Acquisition of Properties Committee have had to face it in connection with the re-housing of tenants displaced in connection with the Street Improvement Scheme; and now the Health Committee have got to face it in connection with Slum Clearance.

One point of view is that all new working-class houses should be built with at least three bedrooms, on the ground that sooner or later in the life of any house three bedrooms will be required, one for the parents, one for the sons and one for the daughters. It is contended that there are already in existence large numbers far too many indeed—of old houses with less than three bedrooms, and that these more than suffice for the needs of those who do not require three bedrooms.

It is further contended that the extra capital cost of building three-bedroomed houses as compared with houses with two bedrooms is so small as hardly to be worth consideration.

On the other hand it is urged that it is no use building houses for a given class of people unless they can be let at a rental which they can afford to pay; and that the lowest rental at which three-bedroomed Corporation houses are let is much above the figure which most of the people living in the slums are at present paying or can afford to pay. It is pointed out that for many of these families two bedrooms are quite sufficient for their requirements. Thus, it is only when there are children of opposite sexes above a certain age—say eight years—that the third bedroom is really necessary. Moreover, if there are more bedrooms than are actually required it encourages sub-letting.

Therefore for young couples without children, or with only young children, or where the older children are of the same sex; or for old couples, a two-bedroomed house is quite sufficient. If it is argued that young children will grow up in a few years and that then a third bedroom may be required, it can be answered that where the Corporation is the landlord strict rules can be made and enforced that as soon as the circumstances of the family require it tenants must move into a larger house. This could be made an absolute condition of the tenancy. With the large number of houses now owned by the Corporation a certain number of houses will always be falling vacant and tenants requiring to move into larger houses could be given the first refusal of these.

As regards the saving in cost, this may only be small, but every little helps.

These are the arguments and it will be for the Health Committee, as has been said, to decide which policy they will adopt.

Personally, whilst I sympathise fully with those who have been fighting for the three-bedroomed house, and whilst I agree that the Housing Committee were quite right in concentrating, especially at the outset, on this type of house, I think that the

Acquisition of Properties Committee, faced as they were with the duty of catering for the needs of those whom they were displacing and therefore with a different problem from that of the Housing Committee, were also right in deciding to build a certain proportion of small houses with only two bedrooms. Also I think that the Health Committee, with much the same problem as the Acquisition of Properties Committee, will also do well to build a certain proportion of small houses. I would suggest that particulars of each family (number of persons, ages and sex), in the area to be cleared be first ascertained, and that then the size of the houses to be built be determined so that the displaced families could be rehoused without overcrowding. This would probably mean that a certain small number of houses would need to be provided with more than three bedrooms. Indeed, all housing schemes ought by building a few larger houses to make provision for those large families for whom three bedrooms are insufficient. It is unfortunate that the Corporation have not hitherto felt able to do this (the Government Subsidy policy has perhaps been largely responsible for this omission), and the consequence is that some of the worst cases of overcrowding met with by the Health Department, viz., the exceptionally large families, are refused a Corporation house "because a three-bedroomed house would not be large enough," and this in spite of the fact that many of these cases are at present living in two-bedroomed houses.

HUMANE SLAUGHTERING OF ANIMALS FOR FOOD.

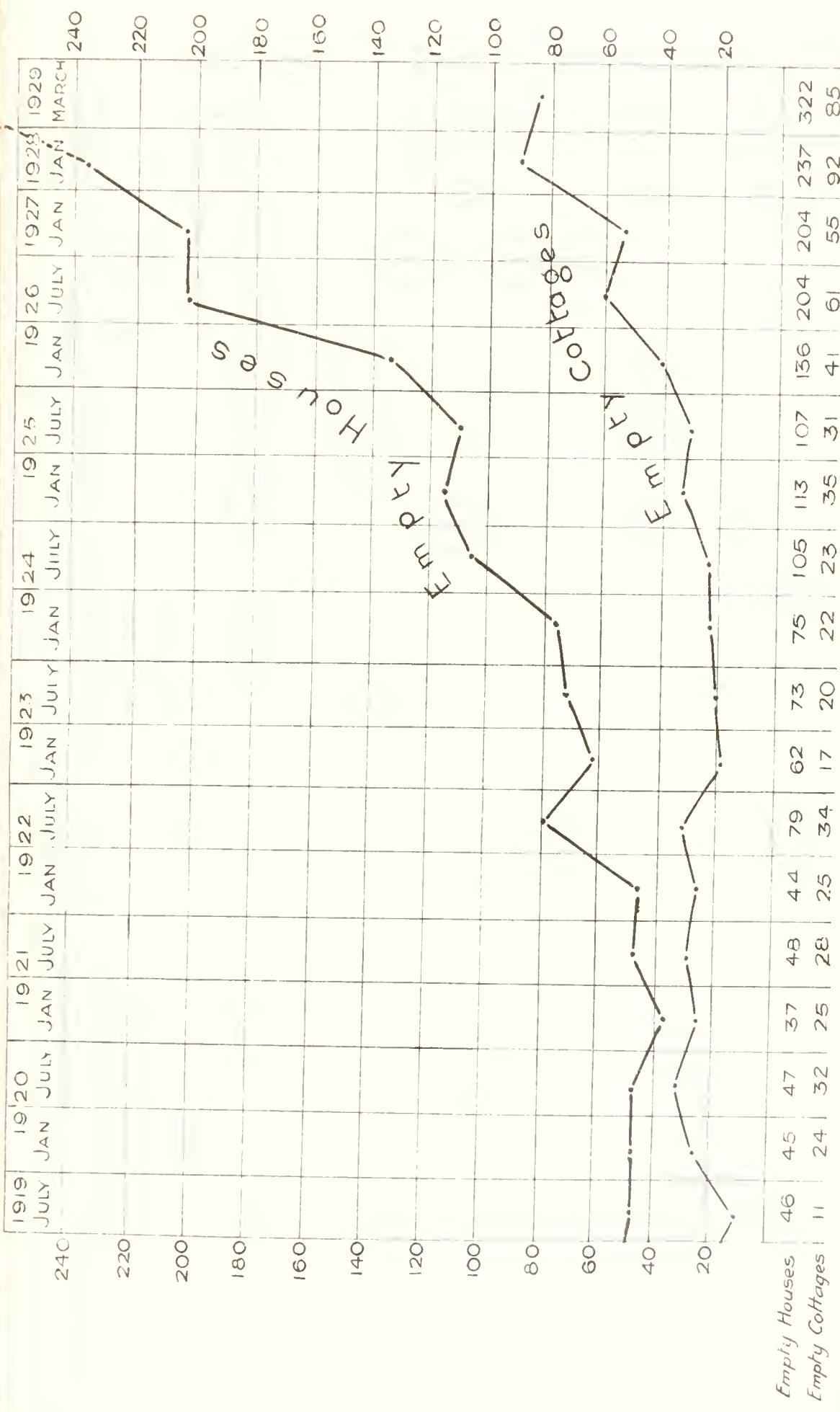
The new byelaw passed by the City Council which makes the compulsory stunning of animals by a mechanically operated instrument prior to slaughter has been in operation since February 1st and very little friction or trouble has been experienced so far as the administration of the law has been concerned. In this matter the Butchers' Association who opposed the passing of the byelaw, particularly as regards its use for sheep and pigs, have, since the byelaw came into operation, loyally helped us to put it into effect.

SMOKE ABATEMENT.

The question of smoke abatement continues to engage the earnest attention of the Health Department. Leicester has the reputation as a city of being comparatively free from smoke, which is doubtless deserved, but we are in the fortunate position of having no important industries producing smoke except for the purpose of raising steam; and given adequate appliances and careful stoking very little if any, smoke need be produced in the raising of steam.

GRAPH VI

EMPTY HOUSES & COTTAGES in LEICESTER 1920-1929



Unfortunately these two conditions are by no means always present. Some works have insufficient boiler power, and stokers are sometimes neglectful or do not properly understand their job.

With a view to assisting stokers to a better appreciation of their work, courses of lectures for stokers have been organised for the past two or three years by the College of Technology in co-operation with the Health Department. The attendance at these lectures has been encouraging.

A more difficult factor in the smoke problem is domestic smoke, which is believed to be responsible in winter time for at least fifty per cent. of the smoke in the atmosphere. In summer, owing to the almost universal use of gas cooking, comparatively little domestic smoke is produced and the improvement in the atmosphere of our city is very evident. In winter the only solution in sight is the substitution of a solid smokeless fuel for raw coal, and it is the duty of every local authority to encourage this by every means in their power. In low temperature carbonisation coke a satisfactory domestic fuel exists, and when this can be produced on a large scale at a price which compares favourably with that of coal, the production of domestic smoke should be prohibited by law.

CREMATION.

The number of bodies cremated during the year at the Leicester Crematorium was 61. The number shows a slight decline on the previous two years, but judging by the number of cremations which have occurred in the first half of 1929 (67) there is no reason to think that cremation is not increasing in popularity. Nevertheless, it has to be admitted that its growth in public favour has hitherto been slow.

Taking the country as a whole, there were 3,436 cremations as compared with 3,265 in 1927, and with 2,395 in 1924.

There are now 18 crematoria in Great Britain, two additional ones having been opened during the year, viz., at Bristol and Ipswich. The crematorium at Bristol was only opened in March, and from then till 31st December 71 cremations had been performed - a very satisfactory beginning.

Sunday Demonstrations at the Crematorium.

The Estate and Burial Grounds Committee have for the past three years during the summer months arranged periodical Sunday afternoon demonstrations at the Crematorium at which short

addresses are given and parties are taken through the building and have the working arrangements explained to them. The Chairman of the Committee (Councillor J. Johnson) and the Superintendent of Cemeteries (Mr. A. C. Addison) have taken a great personal interest in these demonstrations, which have been a great success. The number of visitors at each demonstration is some hundreds, and since the scheme was started many thousands of the public have availed themselves of the opportunity afforded them of learning about cremation.

LOCAL GOVERNMENT ACT, 1929.

This Act which comes into force next year, is the most important piece of legislation so far as the care of the poor is concerned which the present generation has seen or is likely to see.

Part I. accomplishes two great reforms.

1. It transfers the administration of the Poor Law from Boards of Guardians—which will cease to exist in April—to County and County Borough Councils.

2. It provides for taking out of the Poor Law such services as relief of the sick, the blind and the mentally deficient. Incidentally it removes from association with the Poor Law the administration of the Vaccination Acts, which have no real connection with the Poor Law, and whose association with it originally was largely accidental or a matter of convenience.

This is not the place to discuss the many questions that will arise under the new Act, and which will have to engage the attention of the Committee. Two special memoranda on the Medical aspects of the Act have been already presented by the writer.

GENERAL PROVISION OF HEALTH SERVICES FOR THE CITY OF LEICESTER.

The following statement is included in the Report as requested by the Ministry of Health.

Hospitals provided or subsidised by the Sanitary Authority:—

A. (1) **For Infectious Disease.**—The City Isolation Hospital, Groby Road. 130 beds.

(2) **For Smallpox.**—Smallpox Hospital, Anstey Lane. 48 beds. When not required for smallpox it is used for treatment

of tuberculosis in children. Is administered as a branch of the Groby Road Hospital.

B. (1) Tuberculosis. The Sanatorium, Groby Road, 164 beds, of which approximately 72 are for ambulant (early) and "observation" cases, 62 for "hospital" cases, and 30 for non-pulmonary ("surgical") cases. In addition, when not required for smallpox the Anstey Lane hospital provides accommodation for 48 children suffering from pulmonary tuberculosis.

The Isolation Hospital and Sanatorium is a combined institution with one administration, having a total accommodation of approximately 342 beds.

A scheme for a new Children's Sanatorium, to be erected on land adjoining the Groby Road site belonging to the Corporation and at present let for allotments, is under consideration. This would take the place of the Anstey Lane Hospital which would then be reserved solely for its primary purpose of a Smallpox Hospital. The buildings at the latter institution are very old (built originally in 1872) and constructed of wood.

Convalescent Sanatorium.

Mention may be made here of the Convalescent Sanatorium, "Home Place," Holt, which has been presented to the Corporation by the Health Week Committee, and which was provided by a special fund raised for the purpose. This at present provides accommodation for 22 patients and staff, and will be a very valuable asset. Patients were first sent there, June, 1929.

For separate report of the Isolation Hospital and Sanatorium see Appendix II.

(2) Maternity.—The Municipal Maternity Home, Westcotes Drive. 26 beds. A scheme is being considered for providing increased accommodation.

There is also a voluntary lying-in institution, the Leicester and Leicestershire Maternity Hospital, Causeway Lane, 26 beds, but this is not subsidised by the Sanitary Authority.

(3) For Children.—The Sanitary Authority provides no hospital for children other than that mentioned above for tuberculosis.

(4) For Orthopædics.—The Corporation makes no provision for orthopædic cases other than tuberculosis, but there is

a separate block for children at the Leicester Royal Infirmary. A certain number of orthopaedic cases are admitted there, and there is an excellent Orthopaedic Department for outpatients. The Royal Infirmary is not subsidised by the Sanitary Authority.

Institutional Provision for Unmarried Mothers, Illegitimate Infants and Homeless Children.—The only provision apart from the Poor Law, is St. Mary's Home, Westleigh Road, at which nine beds are reserved for V.D. cases in unmarried women. See Appendix V.

Ambulance Facilities.—The Sanitary Authority has three motor ambulances available for infectious cases and tuberculosis. The Corporation Fire Brigade has two motor ambulances for non-infectious and accident cases, and the Red Cross also has two. The latter are not subsidised by the Sanitary Authority.

Clinics and Treatment Centres.—The Health Committee have a Day Nursery conveniently situated in the centre of the City with accommodation for the day care of 60 babies and toddlers. They also control 15 Infant Welfare Centres (Schools for Mothers) and a Milk Depôt (for the sale of Dried Milk).

A scheme has been sanctioned for an Orthopaedic Clinic and Light Centre, which is to be financed jointly by the Health and Education Committee.

The Tuberculosis Dispensary is carried on at the Health Offices in Grey Friars. The accommodation is cramped and the situation noisy. A scheme for new and separate premises is under consideration.

A Cancer Clinic, almost the only one of its kind in the country, is also held at the Health Offices (see p. 25).

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The above Act came into operation on January 1st, 1929. It is essentially a consolidating Act, repealing and consolidating the provisions of the Sale of Food and Drugs Acts, 1875 to 1927, together with a number of amending provisions contained in other statistics, notably the Milk and Dairies (Consolidation) Act, 1915. It will simplify reference, but there are not any new provisions which need be referred to here.

MILK AND CREAM REGULATIONS

(Return required by Ministry of Health.)

No. of samples of cream taken during 1928 .. 17

Contraventions 0

All the samples were tested by the Public Analyst for preservatives (boric acid, formaldehyde, hydrogen peroxide), but none were found.

One sample (No. 1296) was not as clean as it should have been.

Two of the samples were artificial cream, three were tinned cream, the remainder fresh cream. The percentage of fat of the latter varied from 45 per cent. to 62 per cent.

APPENDIX I.

REPORT OF THE Tuberculosis Dispensary FOR 1928

By WYVILLE S. THOMSON, M.D., D.P.H., Edin.,
Tuberculosis Medical Officer.

Premises.

The Tuberculosis Dispensary, Health Department, Grey Friars, is the centre for dealing with all work in connection with Tuberculosis in the City.

Staff.

The Medical work has been carried on by Dr. Thomson with the half-time assistance of Dr. Lawrie.

The nursing staff which normally consists of three fully trained nurses—a number quite inadequate to deal thoroughly with tubercular cases in a city of this size—has again been depleted by the resignation of Nurse Keeling, which took place early last October. Since then we have had to carry on with two nurses, and as one is constantly required indoors, only one nurse can be visiting at a time. In consequence the number of visits or rather re-visits has been considerably reduced and we are unable to maintain the close touch with patients which is so desirable in a chronic disease like Tuberculosis. One new nurse is likely to be appointed shortly and provision has been made in the estimates for a fourth one.

The clerical work is still in the capable hands of Miss Heaton with Miss Battle as assistant.

Notification Register.

Tuberculosis being a notifiable disease, all persons suffering from it must be notified, and their names are entered in the Register.

At the beginning of 1927 the Notification Register was thoroughly revised. The names of all patients who had left the district were removed as well as those whom we could no longer regard as suffering from Tuberculosis, and only those with definite tubercular disease were retained on the register.

The following are the figures on the Notification Register on 31st December, 1928 :—

PULMONARY			NON-PULMONARY			TOTAL CASES
Males	Females	Total	Males	Females	Total	
1,520	1,426	2,946	136	158	294	3,240

Notifications.

There has been an increase of 5 in the number of persons notified as suffering from Tuberculosis during the past year—785 as compared with 780 in 1927. The pulmonary notifications were 668 in 1928 as compared with 700 in 1927, and the non-pulmonary were 117 as compared with 80 in 1927.

Increase in the number of notifications is not a bad sign, provided there is no corresponding increase in the number of deaths.

Greater care by doctors in sending any cases of whom they are doubtful, and systematic examination of contacts, enables us to detect cases in the earliest stages. They receive treatment before much damage has been done to the lungs—at a stage when they are most likely to derive permanent benefit.

Of the 668 pulmonary notifications 267 were reported by your Tuberculosis Officer and 20 of the 117 non-pulmonary cases.

The following table gives the number of notifications since 1918 :—

1918	..	Pulmonary, 746 ; Non-pulmonary, 82 ; Total, 828
1919	..	658 ; „ 47 ; „ 705
1920	..	572 ; „ 59 ; „ 631
1921	..	497 ; „ 105 ; „ 602
1922	..	566 ; „ 43 ; „ 609
1923	..	692 ; „ 71 ; „ 763
1924	..	725 ; „ 65 ; „ 790
1925	..	606 ; „ 77 ; „ 683
1926	..	650 ; „ 77 ; „ 727
1927	..	700 ; „ 80 ; „ 780
1928	..	668 ; „ 117 ; „ 785

The following table gives the sex and age period of those notified during 1928:—

Age Periods	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 & up.	Total	
Pulmonary													
Males	2	51	28	33	27	62	54	44	17	5	323
Females	2	56	26	34	58	83	48	25	11	2	345
Non-pulmonary													
Males	..	4	8	11	9	3	7	3	4	2	..	..	51
Females	..	5	8	9	3	9	14	9	5	3	..	1	66

Deaths.

It is gratifying to be able to report that during the past year there has been a considerable reduction in the number of deaths from Tuberculosis. The figures for 1928 are 265 pulmonary and 42 non-pulmonary, a total of 307. For 1927 the figures were 283 pulmonary and 63 non-pulmonary, a total of 346. The total reduction has therefore been 39 (18 pulmonary and 21 non-pulmonary). The following table gives the number of deaths each year since 1918:—

1918	..	Pulmonary, 316 ; Non-pulmonary, 82 ; Total, 398
1919	..	„ 264 ; „ 62 ; „ 326
1920	..	„ 255 ; „ 72 ; „ 327
1921	..	„ 278 ; „ 73 ; „ 351
1922	..	„ 294 ; „ 67 ; „ 361
1923	..	„ 285 ; „ 36 ; „ 321
1924	..	„ 287 ; „ 62 ; „ 349
1925	..	„ 305 ; „ 59 ; „ 364
1926	..	„ 282 ; „ 43 ; „ 325
1927	..	„ 283 ; „ 63 ; „ 346
1928	..	„ 265 ; „ 42 ; „ 307

An analysis of the pulmonary deaths which occurred during 1928 shows, in the first portion of the following tables those who had had Sanatorium Treatment, the stage of the disease when first examined and the length of time elapsing between notification and death. In the second portion of the table similar information is given about those who had not had Sanatorium Treatment. In the third portion details are given of those who were never examined at the Dispensary—chiefly patients in other institutions, e.g., the Mental Hospital and North Evington Infirmary. Included here are also those better-class patients who did not desire examination at the Dispensary.

ANALYSIS OF DEATHS.

PULMONARY CASES HAVING HAD SANATORIUM TREATMENT.

Stage when first notified or first examined	Died within one month of notification		Within two months	Within three months	Within six months	Within twelve months	Within 18 months	Within two years	Within three years	Lived three years or over
	Within one month	Within two months								
Stage I. T.B.-ve 32	1	2	..	5	3	3	3	15
Stage II. T.B.-ve 19	1	2	3	5	1	1	6
Stage III. T.B.-ve 4	2	..	2	..	..	..
Stage I. T.B.+ve 22	1	3	2	3	3	3	7
Stage II. T.B.+ve 50	..	1	3	2	3	11	8	5	6	11
Stage III. T.B.+ve 23	..	1	1	2	1	7	5	1	3	2
Total 150	12	5	8	11	28	26	13	41

PULMONARY CASES NOT HAVING HAD SANATORIUM TREATMENT.

Stage when first notified or first examined.	Died within one month of notification		Within two months	Within three months	Within six months	Within twelve months	Within 18 months	Within two years	Within three years	Lived three years or over
	Within one month	Within two months								
Stage I. T.B.-ve 12	..	3	1	2	4	1	1	..	..	..
Stage II. T.B.-ve 8	3	..	2	1	..	1	..	1
Stage III. T.B.-ve 6	..	2	..	3	..	..	1	..	..	..
Stage I. T.B.+ve 3	1	..	..	..	2
Stage II. T.B.+ve 8	..	1	2	..	2	1	..	..	..	2
Stage III. T.B.+ve 11	..	1	2	..	3	3	..	1	1	..
Total 48	7	8	5	11	7	2	2	5

PULMONARY CASES NOT EXAMINED IN CONNECTION WITH
THE DISPENSARY.

TOTAL	Died within 1 month of notifica- tion.		Within 2 months	Within 3 months	Within 6 months	Within 12 months	Within 18 months	Within 2 years	Within 3 years	Lived 3 years or over
	49	24	7	3	7	2	1	..	1	4

These three tables account for 247 deaths. In addition there were 18 deaths of patients who had never been notified as suffering from Tuberculosis. This gives the total of 265 pulmonary deaths.

As regards the non-pulmonary deaths, a large proportion (25 out of 42) were due to acute forms of Tuberculosis, 20 dying from Meningitis and 5 from Miliary Tuberculosis. Sanatorium Treatment is of little or no avail in such cases, and none of them had had Sanatorium Treatment. Of the remaining 17, 9 were due to Tuberculosis of the intestines, 5 to Tuberculosis of the bones and joints, and 3 to Tuberculosis of the kidneys, bladder, etc. Only 7 out of the total 42 cases had had Sanatorium Treatment.

Dispensary Register.

At the request of the Ministry of Health, a register called the Dispensary Register (not to be confused with the Notification Register) was commenced in 1926. In this are entered the names of all patients examined at or in connection with the Dispensary. Many of those examined are, of course, found to be non-tubercular. Others have to be examined repeatedly before one can come to a definite decision. As soon as a negative decision is arrived at the name is crossed off the Register. Similarly the names of those patients who remove to other areas outside the city boundary are taken off, and an intimation is sent to the Medical Officer of Health of the district to which they remove. Also on the death of a patient, the name is removed, so that the Register, which is kept thoroughly up to date, contains the names of all tubercular patients as long as they are under Dispensary supervision.

The number on this register is likely to be smaller than that on the Notification Register, as those who are not examined at the Dispensary (e.g., better-class patients and those in institutions such as North Evington Infirmary, Mental Hospital, etc.), do not appear in it.

The following table recently made out for the Ministry of Health from information contained in this Register may prove of interest.

ANALYSIS OF CASES ON DISPENSARY REGISTER

DIAGNOSIS	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A New Cases examined during the year :—												
(a) Definitely T.B. . .	175	163	69	62	16	26	13	12	191	189	82	74
(b) Doubtfully T.B. . .	..	..	..	..	..	..	..	..	19	28	5	5
(c) Non-Tuberculous..	..	..	..	..	..	..	..	..	94	74	33	27
B Contacts examined during the year :—												
(a) Definitely T.B. . .	4	2	12	13	..	..	..	1	4	2	12	14
(b) Doubtfully T.B. . .	..	..	..	..	..	..	..	..	1	1	2	4
(c) Non-Tuberculous . .	..	..	..	..	..	..	..	..	7	24	56	55
C Cases written off Dispensary Register :—												
(a) Cured . . .	9	2	3	1	..	1	1	2	9	3	4	3
(b) Diagnosis not confirmed or non-tuberculous . . .	..	..	..	..	..	..	..	..	110	114	92	90
D Number of Persons on Disp. Register on Dec. 31st, 1928 :—												
(a) Diagnosis completed . . .	847	818	465	384	42	65	64	68	889	883	529	452
(b) Diagnosis not completed . . .	..	..	..	..	..	..	..	..	22	26	5	8
Total patients on Dispensary Register on December 31st, 1928 = 2,814												
1. Number of persons on Dispensary Register on January 1st, 1928 . . .	2,417				3. Number of patients transferred to other areas and cases "lost sight of" . . .	60						
2. Number of patients transferred from other areas and "lost sight of" cases returned . . .	97				4. Number of observation cases under A (b) and B (b) above, in which the period of observation exceeded two months . . .	20						

Tuberculosis Dispensary as the "Centre for Diagnosis."

The Tuberculosis Dispensary continues to hold its place as the "Centre for Diagnosis," and doctors have no hesitation in sending patients whenever they have any doubt as to the presence or absence of Tuberculosis. Notes from 102 different doctors requesting an opinion on 451 cases were received and dealt with during the past twelve months. In addition, many patients, not under medical attention, called on their own initiative desiring to know whether they had consumption.

Contacts have been regularly examined, and in this way one finds cases in the early stages of the disease.

The Ministry of Pensions regularly send their cases for examination, in many of whom an opinion is desired as to the

presence or absence of Tuberculosis. The number of these examinations has naturally fallen considerably during recent years. 67 examinations and reports were made on these cases as compared with 161 last year.

Chest Examinations.

Altogether 3,032 chest examinations were made, an increase of 627 on the previous year. Particulars are as follows:—

	Men.	Women.	Children.	Total.
First examinations	313	365	289	967
Re-examinations	584	674	807	2,065
	—	—	—	—
	897	1,039	1,096	3,032
	—	—	—	—

Bacteriological Examinations.

Bacteriological examinations to the number of 1,297 have been made for the tubercle bacillus. Of these 471 were examined for doctors in practice in the city, and the remainder were obtained from patients examined at the Tuberculosis Dispensary. Sputum examination, if there be any expectoration, forms part of the complete examination of every patient sent for an opinion, before reporting to the doctor.

The following figures give the results of examinations:—

Nature of Specimen	Positive	Negative	Total
Specimens of Sputum :—			
From Practitioners.. ..	58	413	471
From Patients examined at Dispensary	208	600	808
Specimens other than sputum ..	—	—	18
	266	1,013	1,297

Patients Passed for Sanatorium Treatment.

The "Admission Committee," consisting of two or more members of the Hospital and Dispensary Committee, attend at the Tuberculosis Dispensary each Monday afternoon, and, in conjunction with the Tuberculosis Officer and Medical Superintendent of the Sanatorium, interview and select from patients examined during the previous week, cases for Sanatorium Treatment. During the past year 548 patients were passed for a course

of Sanatorium Treatment, at Groby Road in the case of 388 adults and 15 children (surgical cases), and at Anstey Lane in the case of 145 children (pulmonary cases). In 1927 the figures were 581, being 395 adults, 20 children (surgical cases), and 166 children (pulmonary cases).

Unfortunately, owing to our limited accommodation, many patients who desired admission or re-admission to Sanatorium had to be refused. For months back the waiting list has been very heavy, and often a month or two months, or even more, elapses between a patient being passed for admission to Sanatorium and his entering the institution.

Owing to the outbreak of smallpox it was found necessary on 24th October, 1928, to use the Children's Sanatorium at Anstey Lane as a smallpox hospital—the purpose for which it was originally erected. Accommodation was found for 16 girls in one of the wards of the Isolation Hospital, but the remaining girls and all the boys who were undergoing treatment for pulmonary tuberculosis, had to be discharged to their homes.

It is disappointing that Sanatorium Treatment in children has had, for the time being, to be practically suspended, as the results of institutional treatment in children are likely to be more permanent than in the case of adults.

Patients on Dispensary Treatment.

Medical benefit is available for most patients by means of the State Insurance, Public Medical Service, &c., so that only those patients not so provided for are dealt with at the Dispensary. During the year 391 patients received treatment at the Dispensary, and at the end of the year there were 171 patients attending the Dispensary each week. All other patients are advised to attend periodically for advice.

Those children who have had a course of treatment and been discharged from Anstey Lane Sanatorium have been advised to attend the Dispensary once a week in order that they may be kept under careful supervision. When fit for school an intimation is sent to the School Medical Officer.

Attendances.

The total number of attendances of patients at the Tuberculosis Dispensary during the year was 11,672 (as compared with 9,403 in 1927), a weekly average of nearly 250.

Domiciliary Treatment.

Those insured patients under the State Insurance who, for one reason or another, do not receive Sanatorium Treatment, besides others discharged from the Sanatorium, are recommended for "domiciliary treatment" under their panel doctor. An intimation to this effect is sent to the doctor, and quarterly reports on the patient's condition are sent by him to the Tuberculosis Officer. During the year 432 patients were granted Domiciliary Treatment, and at the end of the year 237 insured patients were receiving such treatment. 722 quarterly reports were sent in regarding patients under domiciliary treatment.

Visits.

One of the nurses (Nurse Keeling) resigned early in October since which time we have had to carry on with only two nurses. As one of those is constantly required indoors, only one nurse has been available for visitation during the last quarter of the year. The result is that the number of visits fell from 6,899 in 1927 to 6,163 in 1928. Our endeavour is to keep in touch with every patient as long as his name remains on the Dispensary Register. Advice, both verbal and printed, is given. Full particulars are obtained as to the home conditions, contacts, etc. The number of visits paid by the Medical Officers for the purpose of consultation was 351 as compared with 349 in 1927.

Sleeping Shelters.

Eight ex-sanatorium patients have had the use of sleeping shelters, one for over 5 years, one for over 2 years, four for over twelve months, and two for under twelve months.

Most of our sleeping shelters, which have been in use for about 16 years, are now almost completely worn out. Two new ones have been purchased recently and others will be obtained as required.

Unfortunately those persons most requiring shelters very often have not the necessary ground on which they could be erected.

Additional Nourishment.

The Health Committee grant milk to necessitous cases, under arrangements made by the Ministry of Health. They can do so up to a sum not exceeding £2 per thousand of the population per annum, and are thus enabled to carry on the grant formerly made by the Insurance Committee. Now, however, all persons, whether insured or non-insured (e.g., children), can have this benefit.

In April, 1927, the Committee decided to purchase only Grade A. T.T. milk for this purpose.

Mr. Councillor C. E. Keene has again dealt with the applications for milk. He attends at the Dispensary every alternate Friday, and reviews each case every four weeks. I desire here to record my appreciation for the very thorough way in which he deals with them.

During the past year 180 persons were granted milk (as compared with 176 in 1927) free of charge, at a total cost of £459 2s. 6d.

Last year the total expenditure was £300 15s. 11d., and for 1926 the figure was £269 4s. 9d.

At the end of the year 102 patients were in receipt of a daily allowance of free Grade A milk.

Nursing of Bedridden and Surgical Cases.

The Health Committee, by an arrangement with the District Nursing Association, provide the services of a nurse to assist bedridden cases of Pulmonary Tuberculosis and those surgical cases in need of dressings, etc. This work is under the general supervision of the Tuberculosis Officer, and each patient having the services of a district nurse is periodically visited by one of the Tuberculosis Health Visitors. During the past year 93 cases received assistance in this way. Altogether 5,042 visits were paid at a total cost of £252 2s. 0d. The figures in the previous year were 5,411 costing £270 11s. 0d.

After-Care.

Many of the previous headings such as visits, use of sleeping shelters, additional nourishment, nursing of bed-ridden cases, etc., might well have been included under the term "After-Care." A very important branch of the work of the Dispensary consists in looking after patients after their discharge from Sanatorium.

The After-Care Committee, with Mr. Councillor Hincks as Chairman, meets once a quarter and deals with reports from the Tuberculosis Officer and each of the nurses.

We have at the present time 2,814 patients with signs of active disease on our Dispensary Register. Our endeavour is to keep in touch with each of these patients by visitation by the nurses and regular examination at the Dispensary as long as their names remain on the Register.

It is found that the patients very much appreciate these visits, and the knowledge that they are not allowed to drift after leaving Sanatorium stimulates them to help themselves. They seek advice in many different directions, and the nurses have been able to help and encourage them in many different ways.

A difficult problem is finding suitable work for tubercular patients. One cannot blame employers for hesitating to engage them. Many of them are only fit for light work and cannot be depended upon to turn up with the same regularity as healthy individuals. Light outdoor work, such as would be desirable for tubercular persons, is extremely difficult to obtain and is almost always unremunerative, so for a married man with dependents it is out of the question. Yet we know that in many cases a return to arduous indoor work is simply asking for trouble.

We have referred several patients to the Distress Committee during the past year, and the Secretary (Mr. Larrad) has been successful in getting some of them light open-air occupations.

Applications for financial assistance from 36 patients were dealt with, and clothing, dentures, etc., granted where necessary. The total cost was £55 9s. 4d. For 1927 the sum expended was £40 12s. 4d., for 1926 £51 4s. 10½d., and for 1925 £71 1s. 9d.

Thanks to the kindness of Canon Sturdee, for the fourth year in succession, we received a large number of toys, which were distributed by Miss Heaton and Miss Battle during the past Christmas to about 100 of the poorer class children who attended the Dispensary. Needless to say, these were very much appreciated.

Need for Larger Premises.

The work at the Dispensary continues rapidly to increase. Each year the number of examinations and attendances far exceeds the previous one.

Office, waiting room and laboratory accommodation are now totally inadequate.

More extensive premises are urgently required and in order that the Dispensary may be thoroughly up to date provision should be made for an X-Ray Installation and rooms in which light treatment, etc., could be given.

It is earnestly hoped that something may be done in this direction in the near future.

WYVILLE S. THOMSON.

APPENDIX II.

Report on the Isolation Hospital and Sanatorium for the Year 1928.

The number of cases of the various diseases admitted during the year is shown in Table A at the end of this report.

SCARLET FEVER.

Number of Discharges	..	..	..	982
„ „ Deaths	..	..	..	2
Death-rate per cent. of completed cases	..	..	..	0.2

Causes of Deaths.

Septic Scarlet Fever: secondary haemorrhage	..	..	1
Scarlet Fever and Acute Bronchitis	..	..	1

Double Infection on Admission.

Scarlet Fever and Diphtheria	..	..	6
„ „ „ Chickenpox	..	..	4
„ „ „ Mumps	..	..	1

Cross Infection of Scarlet Fever Wards.

In the first quarter of the year chickenpox developed in 11 cases, the result of an infection introduced at the end of 1927. Mumps was introduced into the wards in the third quarter. Two cases followed. No cross-infections occurred during the latter part of the year when intravenous anti-toxin was actively employed, although the number of patients dealt with was exceptionally high during that period.

Return Cases.

As far as could be ascertained, there were 15 cases occurring at home within **two months** of the return home of a case of Scarlet Fever from the Hospital. This gives the low return-case rate of 1.5 per cent., which is highly satisfactory considering that the period was one of epidemic prevalence of the disease and that, therefore, some at least of those who were labelled return cases were most probably cases of incidental infection.

Complications.	No. of Cases.			Results.		
Acute Nephritis 3	cured 3					
Acute Suppurative Otitis Media 15	cured 15					
	(i.e., perforation healed: ears dry 7 days).					
Suppurative Otitis Media .. 13	(ears dry 9 condition un- changed 4					
Acute Arthritis 11	cleared up 11					
Persistent Nasal Discharge .. 28	cleared up 28					
Heart Muscle affected .. 13	cleared up 13					
Secondary Tonsillitis 17	cleared up 17					
Secondary Adenitis 6	cleared up 6					
Various minor Septic conditions.. 45	cleared up 45					

Operations.

Mastoid Operation 4	cleared up 4
Incisions of various Abscesses .. 10	cleared up 10
Paracentesis 1	cleared up 1
Removal of Tonsils and Adenoids 10	ear and nasal dis- charge cleared up 10

**Average duration of residence in hospital (all cases),
24 days.**

Intravenous Scarlatinal Anti-toxin.

The statistics of complications, &c., given above refer to **all** cases discharged during the year. They are, however, somewhat misleading in this form. A more accurate estimate of their significance is obtained when the cases are divided up into two groups.

- I. Cases receiving anti-toxin intravenously, 404 cases.
- II. Cases receiving no anti-toxin, or anti-toxin intramuscularly, 578 cases made up as follows :—

No anti-toxin	458
Anti-toxin intramuscularly	102
Do. (as prophylactic)	20
Total, Group II.	578

Group I. comprises all the **more severe** cases occurring during the period, May to December, 1928, yet the complications in this group were limited to 13 minor septic occurrences, a complication

rate of 3.2 per cent. Not a single serious complication such as otitis media, nephritis or arthritis occurred. There was 1 death.

Group II. comprises all cases occurring during the first 4 months of the year, and all the milder, doubtful, or late cases thereafter. The complications in Group II. number 138, of which 3 were nephritis, 28 otitis media, and 11 arthritis. The mastoid operation was required 4 times for cases in this group. **The complication rate in Group II. works out at 23.7 per cent.** There was also 1 death.

In Group II. the average duration of residence in hospital was 17.7 days, and in Group II. (which comprised the milder cases) 26.8 days.

These facts show clearly the great advantages to be obtained from treatment of Scarlet Fever with anti-toxin intravenously. It cuts short the acute stage of the disease, prevents complications and materially reduces the period of disability. Patients may be **safely** discharged after 9 to 18 days residence in hospital, compared with an average residence of 28 to 45 days under the more orthodox practice.

That complications do not supervene later in intravenous cases has been shown by routine examination of these patients some two to three weeks after their discharge from the hospital. In 334 cases examined, no complications resulting from Scarlet Fever could be discovered.

This subject need not be dealt with further here, since details have been published in a paper, "Intravenous Anti-toxin in Scarlet Fever."* It is sufficient to remark that the whole outlook in the hospital treatment of Scarlet Fever has been altered. The wards once typically septic in this disease, may now be described as almost surgically clean. There are practically no complications, and scarcely any medical or nursing treatment is required after the first few hours following admission. The bed accommodation necessary is at least halved and the nursing is correspondingly reduced. The cost of the serum, approximately 15s. per case, is not serious in comparison with the very substantial economies described. The treatment may be easily carried out where there is a skilled resident medical staff and efficient ward equipment, particularly good local lighting arrangements at each bed and suitable syringes and needles.

Temperature charts showing the effect of intravenous anti-toxin in the acute stage of Scarlet Fever are reproduced.

A table giving certain particulars referred to above is also shown.

**Lancet*, Feb. 23rd, 1929.

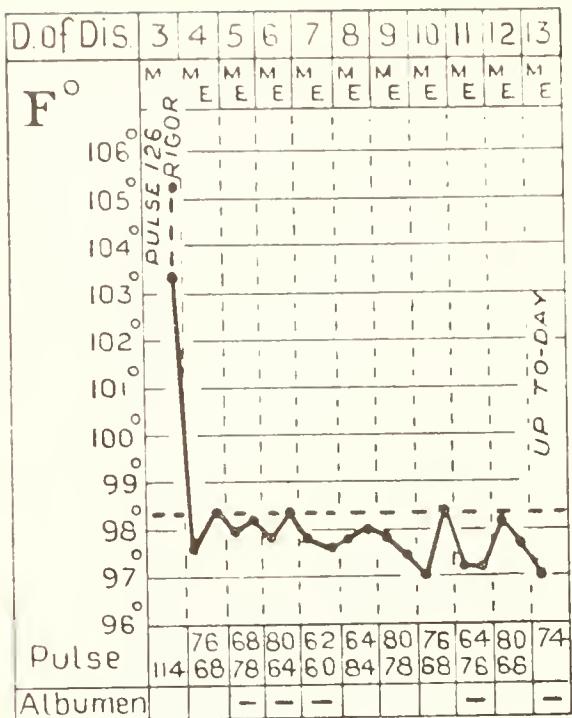


Chart showing effect of intravenous anti-toxin in Scarlet Fever.

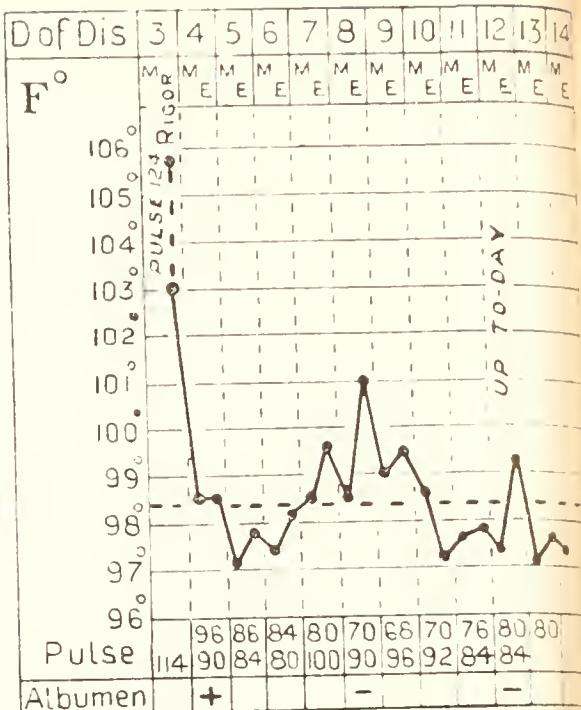


Chart showing secondary pyrexia following intravenous anti-toxin in Scarlet Fever.

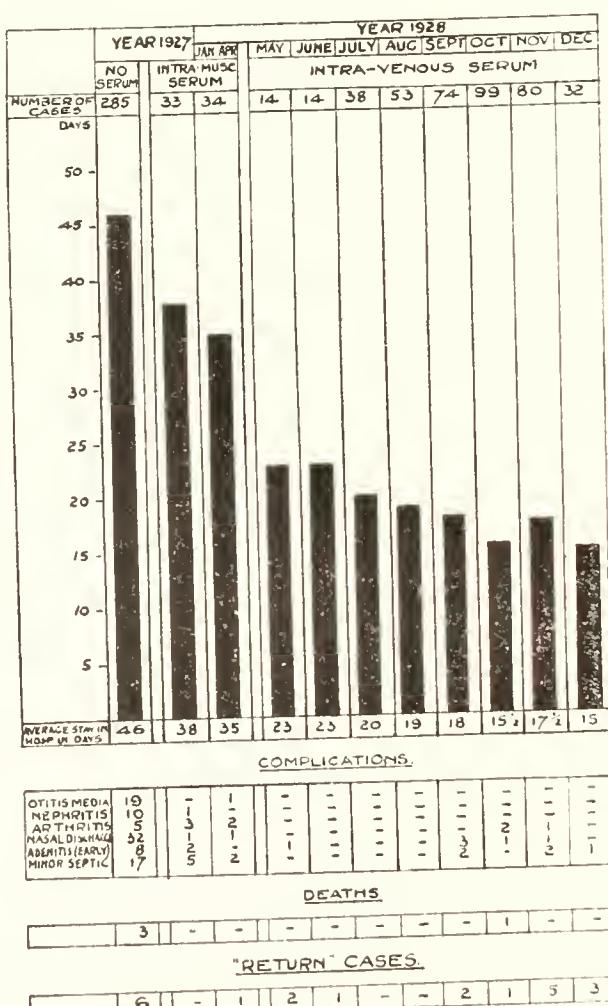


Chart showing effect of Intramuscular and intravenous anti-toxin on duration of residence in hospital, and on complications, deaths and "return" cases. During the period, January to April, 1928, there was one death—a septic case which was not treated with serum.

DIPHTHERIA.

Number of Discharges	..	..	..	434
Altered Diagnosis	..	..	..	40
Number of verified cases discharged	..	..	..	390
,, Deaths	..	..	..	16
Death-rate per cent. of verified and completed cases	..	..	..	3.9
Death-rate per cent. of verified and completed cases (excluding laryngeal cases and deaths within 24 hours of admission)	..	..	..	1.9

Causes of Deaths.

Severe Toxic or Malignant Diphtheria	5
Do. (haemorrhagic type) ..	5
Do. (late paralysis of heart)	2
Laryngeal Diphtheria	4

Four of the deaths from severe toxic Diphtheria occurred within 24 hours of admission, three of these being moribund on admission.

Double Infections on Admission

Diphtheria and Scarlet Fever	1
,, ,, Mumps	2
,, ,, Pulmonary Tuberculosis ..	1

Cross Infections of the Diphtheria Wards

Scarlet Fever was introduced into these wards in January, and two other cases of this disease occurred as a result. Cases of mild Scarlet Fever cropped up during the year, one in April, one in July and three in November. The sources of infection in these cases were not discovered.

The wards were also crossed with Ringworm of the Scalp (2 cases) and Mumps (1 case).

OPERATIONS

(a) Tracheotomy.	No. of Cases.	Results.
N.B.—This operation was performed in a number of hopeless cases, with a view to giving relief from distress 6	recovered .. 2	
	died 4	
(b) Removal of Tonsils and Adenoids in Convalescent Carriers .. 13	discharged with negative swabs 13	
(c) Rib Resection for Empyema 1	recovered .. 1	

Complications.

(a) Post Diphtheritic Paralysis—

Heart (serious)	..	5	died	..	..	5
Heart (slight)	..	34	recovered	..	..	34
Palate	..	22	..	..	..	22
Eyes	..	16	..	..	..	16
Lower Limbs (slight)		numerous.				
(b) Albuminuria	..	6	recovered	..	..	6
(c) Acute Suppurative Otitis						
Media	..	3	ears dry	..	..	3
(d) Other complications	..	10	recovered	..	..	10

Intensive Serum Treatment of Severe Diphtheria.

The investigation referred to in last year's report of the effect of very large doses of serum applied intravenously in severe toxic cases was continued. There were 40 cases of this malignant type of Diphtheria (Group A in our classification) admitted during the year; 12 of these died, 4 of them being moribund on admission. This gives a death-rate of 30 per cent. for this group, which, although slightly higher than the figure for the previous nine months, is still satisfactory in view of the usual mortality of 80 per cent. to 90 per cent. in this extremely fatal form of the disease. The effect of the intensive serum treatment is shown for the second year in succession in a greatly lowered case-mortality rate of all completed cases, viz., 3.9 per cent. compared with an average of 9.3 per cent. in the preceding decennium. When laryngeal cases, and those dying within 24 hours of admission are excluded, the case-mortality rate becomes 1.9 per cent. The corresponding figure obtained by V. Bie of Copenhagen by the use of similar methods in about 12,000 cases of Diphtheria treated since the year 1920 averages about 1.5 per cent.

The intensive method is costly and requires discrimination in determining the dose appropriate to each case. It is often a matter of great difficulty to estimate the minimum but adequate curative dose required, and how much to give intravenously. It is also of great importance to give that amount all at once. A second dose after 12 hours is not nearly so effectual and, if it is found to be necessary, a very large amount indeed must then be given. If due regard is to be had for economy, considerable judgment is required. Even so, in such a treacherous disease, mistakes are bound to be made. It is hoped, however, to profit by these mistakes to arrive at more perfect criteria and technique and thereby

obtain even better results. The conclusion as to dosage at which we have so far arrived, is that for an average typical severe toxic case (Group A), about 100,000 units of serum are required intravenously and 50,000 intramuscularly, all at the same time. In certain cases slightly more or less may, of course, be indicated.

Schick Test.

This test has been applied generally in doubtful cases admitted to the Diphtheria Wards and has been found very helpful. Largely by the use of the test, 40 cases were judged not to be suffering from Diphtheria and were discharged in much less than the usual time. When the test was found to be positive, serum was given, or active immunisation with toxoid carried out, according to circumstances. When the Schick test was negative on admission, the case was generally discharged within a few days, provided a negative swab was obtained.

Virulence Tests.

In cases where the throat or nose swab was persistently positive in convalescence, animal inoculations to test the virulence of the bacillus isolated from the swab were undertaken. When the virulence test proved negative, the case was discharged forthwith. When the virulence test was positive, however, the usual procedure was to enucleate the tonsils and adenoids, if the swab were taken from the throat, or to douche out the nose with alkaline lotion, and attend to gross defects, if it were a nasal swab. Removal of tonsils and adenoids for this purpose was done in 13 cases, and in all cases, negative swabs or swabs negative for virulence were ultimately obtained.

Throat Swabs in Acute Stage of Diphtheria.

Further evidence was obtained concerning the unreliability of the throat swab in the acute stage in severe cases of Diphtheria. Not uncommonly the first swab was reported negative. In some cases this appeared to mislead the medical practitioner, resulting in valuable time being lost. It cannot be too clearly emphasised that the clinical condition of the throat is the paramount consideration in Diphtheria, and that if the swab report conflicts with this, it should be disregarded.

ENTERIC FEVER.

Six cases were admitted as Enteric Fever, and in four cases the diagnosis was confirmed. All four recovered.

MEASLES.

Three cases were dealt with during the year, and all recovered.

ERYSIPelas.

Twenty-six cases of Erysipelas, chiefly of the facial type, were discharged recovered, and three died. The latter were all senile persons with no resistance. Ultra-Violet Light was used as a routine, an erythema dose being given at 2-day or 3-day intervals. This measure appeared to accelerate recovery. Scarlet Fever anti-toxin did not appear to give the results hoped for.

CEREBRO-SPINAL FEVER.

Two cases of Cerebro-Spinal Fever were discharged, one being perfectly cured. The other, an infant, had serious impairment of vision. A third case died. The recovered cases apparently responded to intensive intra-thecal and intravenous serum.

PUERPERAL FEVER.

Four cases of Puerperal Fever and two of Puerperal Pyrexia were treated by the intra-uterine glycerine drainage method. All four recovered.

POLIOMYELITIS.

Five cases remaining from the Leicester epidemic of 1926, and who had received in-patient orthopaedic treatment for about 16 months were discharged in March, 1928. These children had reached about the limit of improvement obtainable, and had no contractures. They were provided with appropriate splints, and advised to attend the out-patient department of the Royal Infirmary.

SMALLPOX.

The Anstey Lane Hospital was closed for Tuberculosis in children in July, 1928, upon the outbreak of smallpox. During the year 86 cases were admitted, 63 discharged and 23 remained at the end of the year. In addition 6 contacts were admitted.

The cases, with very few exceptions, were extremely mild. All recovered and there was no permanent disability.

OTHER INFECTIOUS DISEASES.

These included :—mumps, 4 cases; chickenpox, 1; pneumonia, 4, one of which developed empyema and had the rib-resection operation; other diseases, five cases. All recovered except one case of acute streptococcal septicæmia, which had been sent in as a case of Diphtheria.

TUBERCULOSIS.

The average number of beds available throughout the year for Tuberculosis as shown in Table D at the end of this report is reduced this year owing to :—

- (1) The closing down of Anstey Lane Hospital for Tuberculosis in children from July, 1928.
- (2) The closing down of certain "verandah" beds in Wards 4 and 5, and of the 20 bed cubicle hut (Ward 10 annexe) during the worst of the winter weather.

The latter factor has for the first time been taken into consideration in computing the **average** number of beds available for the year, as required by the Ministry of Health.

Table E gives the classification of cases and the results of treatment in accordance with the scheme of the Ministry of Health as detailed in last year's report.

The salient features of Table E are :—

(1) Class T.B. minus reduced.

The number of patients in this class has been reduced this year to 304, owing to the improved facilities which are now provided for the examination of sputum. This class now represents 42 per cent. of all pulmonary cases discharged exclusive of children, and compares favourably with last year's figure of 57 per cent. It is hoped that this figure will be improved still further when the new laboratory is provided.

It is very important to search the sputum repeatedly for tubercle bacilli in T.B. negative cases. The treatment and the outlook in the case largely depend upon a reliable report on this matter, and, further, all statistics and conclusions based upon statistics are rendered immeasurably more reliable. It is satisfactory from this point of view to know that considerable numbers of cases admitted as "observation cases," or cases with little or no sputum, have recently, by intensive search, been found to be T.B. positive.

(2) Result of Treatment—"Improved."

336 cases or 68 per cent. of the pulmonary cases have been classified under this head as compared with 64 per cent. last year. Very few have been classified "quiescent."

It must be recognised that a period of about $4\frac{1}{2}$ months sanatorium treatment, which is our average, is only the educative part of the treatment of pulmonary tuberculosis. For the succeeding two or three years at least, the principles of rest and graded work,

&c., which he has learned, must be applied as far as possible by the patient himself. Most patients on discharge from the sanatorium have still got active and slowly progressive disease, and are, therefore, classified as "improved," which in the official language means that "the symptoms of tuberculosis have materially diminished." Nothing more than this can be expected of 4 months sanatorium treatment, and if this were more generally recognised, there would be a more accurate conception abroad of the true place which sanatorium treatment occupies in the long struggle that is generally necessary to combat tuberculosis.

(3) Duration of Residential Treatment.

This exceeded 3 months in the case of only 71 adults of the T.B. minus group, or 21 per cent. of the adults in the group. This figure is the same as that of last year (only 8 adults and 4 children in this group had more than 6 months treatment).

The average duration of residence of all adult pulmonary cases treated was $17\frac{1}{2}$ weeks, and of children with pulmonary tuberculosis 10 weeks.

(4) Non-Pulmonary Tuberculosis.

30 cases of these forms of the disease were discharged as "improved" or "quiescent," 5 were discharged unimproved (all adults); there were 2 deaths of children from tuberculous meningitis. These forms of tuberculosis in children respond very well to treatment which must be for a prolonged period. The average period was 37 weeks.

(5) Observation for purpose of diagnosis.

38 cases were dealt with under this head, as compared with 44 last year. These are difficult cases entailing studied care before a reliable diagnosis can be arrived at. 30 of the cases were finally classified tuberculous, 3 non-tuberculous, 4 doubtful. More of these cases would have been investigated had accommodation permitted.

The Sanatorium Treatment of Pulmonary Tuberculosis.

The various details of this treatment were stated in last year's report. The routine of graded rest, graded work, defined hours of recreation and sleep, which is at least as necessary as good food and fresh air, was again meticulously carried out. No leave was given except for very urgent reasons. Practically no difficulty was found in securing discipline. The spirit amongst the patients was remarkably good.

Special Treatment of Pulmonary Tuberculosis.

(a) **Artificial Pneumothorax** was induced in 4 cases. The refills and air replacements of pleural fluid required for these cases and also for those induced in the previous year (who attended as out-patients), amounted to more than 200. Considerable satisfaction was derived from this work as all cases but one in whom the operation has been performed have been regularly at work since their discharge from the Sanatorium.

(b) **Sanocrysin.**

A special investigation of this form of treatment was carried out in 23 cases, and a report on the subject is appended.

Patients' Work Scheme.

Apart from the older pursuits of poultry-keeping and pig-rearing, light handicraft work has been further developed. The old "Training Centre" recreation room is now converted into a workshop for making cane-work chairs, tables, baskets, trays, &c. The men who were up "on grade" worked here in the forenoons, and women in the afternoons. Great interest was displayed by patients in this work. The original patients' workshop was devoted to metal and leather work only—chiefly splint making and repairing for the patients in the surgical tuberculosis block. The need for these appliances grew to such an extent that it became necessary to appoint an assistant to the Welfare Supervisor, a youth, who is learning the work and is now very helpful.

With his assistance and that of the patients, these appliances have been supplied to the wards much more expeditiously than was possible before. Arrears having been overtaken, certain articles of ward equipment, surgical dressing wagons, &c., are being made as opportunity offers. In this department also hides are cut into pieces suitable for making purses, pochettes, handbags, wallets, &c. These are sold at cost price to the bed patients, who are practically all engaged at certain hours in making up the articles mentioned. It is impossible to estimate the value of the work scheme in maintaining the morale of the patients not only in the Sanatorium, but also in the hospital wards where incapacity is greater.

The financial arrangements necessary under the scheme were considered to be met most suitably by creating a new fund. This is called "Gilroes Handicrafts Fund," from which all payments for materials are made, and into which all receipts from the sale of the articles are paid.

A small business is thus established quite independent of public funds. The books were audited for the first period of 13 months, on January 7th, 1929, and a balance struck. This showed in the cane work section a turnover for the period of £127 8s. 11d., with a nominal profit (including value of stock in hand) of £63 13s. 6d. In the leather work section the turnover was £80 17s. 10d., and the profit on the year's working £5 7s. 1d. In the latter section only a small margin of profit was retained in the fund to cover expenses and contingencies. The bulk of the profit was taken by the patients who made the articles and sold them by their own efforts. This arrangement applies only to bed-ridden patients whose standard of work varies, and who are, therefore, allowed to make private sales.

The "Gilroes Handicrafts Fund," just prior to the time of writing, made a donation of £20 worth of cane work articles to the new Convalescent Home for Tuberculosis patients, "Home Place," Holt, Norfolk.

Work for Ex-Patients.

A considerable number of patients who passed through the Institution and learned the handicrafts, continued this work after their discharge. Arrangements were made to supply them with material and to give any further instruction that might be necessary. Records of their attendance at the workshops for this purpose have been kept since 1st January, 1929, and during the first six months of the present year, 31 patients have availed themselves repeatedly of this provision. A certain number in addition are known to be doing the handicraft work at home who have made their own arrangements for the supply of material.

SURGICAL TUBERCULOSIS.

There are several developments to be recorded in this department. The splints have greatly improved in design, fitting and quality—particularly the modified abduction frame used for hip-joint cases. This is now made with a carrier which runs on wheels in the frame and serves as a movable support for the affected limb. By means of this device, extension can be readily applied to the limb, and at the same time slight movement in one plane is allowed at the hip joint, the object being to obtain finally not only a healed but also a movable joint.

The space at the back of the ward block has been paved with concrete and divided off into two sections, which allows privacy for the application of natural heliotherapy both for men and women patients.

Out-Patients.—Cases of bone and joint disease after discharge as in-patients, continued to report on Monday forenoons for advice, for repair and removal of plaster casts, splints, and surgical appliances which they wear. When it was found that no object would be gained by further attendance, they were discharged and asked to report at the Tuberculosis Dispensary. The number of these out-patients during the year was 8 and their attendances 24.

Ultra-Violet Light Department.

The new Light Department was opened at the beginning of the winter of 1928. It is a new building erected as an extension to the X-Ray Department and consists of:—

- (1) A room 23 feet by 15 feet, containing two 30 ampere Sunray Carbon Arcs, supported on central travelling gear along the length of the room; one K.B.B. air-cooled "uviator" mercury vapour lamp, for local treatment; one "Jesionek" mercury vapour lamp for general treatment, and one Sollux heat lamp with 1,000 watt bulb for radiant heat treatment.
- (2) A small bathroom with two spray baths, &c.
- (3) A dressing room with pigeon holes and hanging accommodation for patients' clothes.
- (4) A lavatory.
- (5) A duty room which also serves as a waiting room convenient to the X-Ray Department.

The suite was erected at a cost of £1,364 for building and equipment. It proved very useful during the winter. The carbon arc lamps have many advantages over mercury vapour lamps for general light baths. In the new light room, both sources of ultra-violet light were used as required. Four stretcher cases were accommodated round the carbon arcs at a session, and a dozen sitting cases could be similarly accommodated. There is little doubt that the continuation of ultra-violet light treatment during the winter was beneficial in keeping up the muscle tone and feeling of well-being of the surgical tuberculosis cases. The invigorating spray bath after the light treatment was greatly appreciated.

A few cases of almost quiescent pulmonary tuberculosis in adults and children were treated tentatively. It is not yet possible to report results.

The total number of ultra-violet light treatments local and general given during the year was 1,877.

X-RAY DEPARTMENT.

Number of X-Ray films of lungs ..	..	417
" " " other parts ..	..	171
Total number of X-Ray films of in-patients ..	..	567
" " " out-patients ..	..	53

The work done represents a 15 per cent. increase on that of last year.

There is no question as to the value of X-Ray examination in tuberculosis, both pulmonary and surgical. It enhances accuracy of diagnosis and controls treatment. It is indispensable in the treatment of phthisis by artificial pneumothorax, and by Sanocrysin.

Better results than formerly were secured by the use of a Metallix tube and by a very careful tuning-up of the whole apparatus so as to secure the maximum output at each exposure. The apparatus, however, while giving fair results at present, has not the power which is now considered desirable for the highest class of chest work.

HOSPITAL LABORATORY WORK DONE DURING 1928.

Total Number of Investigations, 4,009.

Nature of Specimen.	Bacteriology and Pathology.		
	Result—		
	Number.	Positive.	Negative.
Swabs for Diphtheria—			
(a) from Practitioners	763	147
(b) from Hospital Wards	1413	289
Swabs for Vincent's Angina	2	1
Sputum for Tuberclle Bacilli	1168	570
Urine " " "	7	1
Cerebro-Spinal Fluid "	1	—
Pleural Fluid "	5	2
Cerebro-Spinal Fluid for Meningococcus	7	2
Vaginal Smears for Gonococcus	7	3
Blood for Widal's Test	11	4
Uries examined microscopically	214	—

HÆMATOLOGY.

Blood Sedimentation Tests in Tuberculosis ..	..	..	178
Polynuclear Counts in Tuberculosis ..	..	..	187
Complete Blood Counts .. ..	..	..	9

BIOCHEMISTRY.

Blood Sugar Estimation	..	..	..	..	1
Urea Concentration Estimations	..	..	..	..	9

ANIMAL EXPERIMENTS.

		Number.	Positive.	Negative.	
Animal Tests for Tubercle Bacilli	..	1	0	1	
Virulence Tests for Diphtheria (performed elsewhere)	..	16	5	11	
Post Mortem Examinations	..	..	..	..	11

The Laboratory work has greatly increased in the past two years. In the present year the work done represents a 100 per cent. increase over that of the year 1927, which in itself recorded a 55 per cent. increase over the year 1926.

The number of sputums examined for T.B. was $3\frac{1}{2}$ times that examined in the previous year. The value of repeated examinations of sputum has already been mentioned.

The increase of work recorded was only made possible by the appointment of Mr. J. Lauder, M.P.S., Ph.C., in June, 1928, as Dispenser and Laboratory Assistant. A still further increase of laboratory work is anticipated, and, in preparation for it, plans for a new Laboratory are now before the Ministry of Health.

Animal Inoculations.—Licences from the Home Office have been obtained by the medical staff for inoculation of laboratory animals, chiefly guinea pigs, in connection with routine pathological investigations, e.g., Virulence tests in Diphtheria and tests for T.B. in pleural fluids.

STAFF.

The staff illnesses for which removal to the wards was necessary were :—

- (1) A ward maid who contracted Scarlet Fever.
- (2) A nurse who contracted mild Diphtheria.
- (3) A nurse who had an operation for appendicitis in the Royal Infirmary and who subsequently had thrombosis of the veins of one leg, requiring prolonged treatment.
- (4) A nurse who had Pleurisy with effusion.

Schick Test and Immunisation against Diphtheria.

During the year 21 nurses were Schick tested, and 7 found to be Schick positive, or, in other words, susceptible to Diphtheria.

The latter were immunised by three injections of Toxoid. No severe reactions or harmful results have been encountered.

One nurse who had been Schick-tested and gave a rather doubtful reaction which was judged at the time to be negative, contracted Diphtheria in a mild form. This was the only case occurring amongst the staff during the year.

Medical Staff.

The Junior Assistant Medical Officer, Dr. Archibald Ogg, appointed in May, 1928, resigned in April, 1929, to take up an appointment as Assistant Tuberculosis Officer to the Warwickshire and Coventry Joint Committee. Mr. Sinclair R. Wilson, M.B., Ch.B. (Glas.), succeeded him as Junior Assistant Medical Officer.

Buildings and Equipment.

Alterations and improvements in grounds, buildings and equipment, additional to those detailed in last year's report, have been carried out.

Wards VI., VII. and VIII. have been repainted, and the lighting reorganised according to the standard scheme adopted last year. There is now a portable light over each bed.

A central heating system, linked up to the main boilers, has been installed in the Sanatorium blocks IX. and X., in place of the old local heating systems which constantly gave trouble. This scheme involved the construction of a duct 583ft. long by 2ft. deep, covered with removable concrete slabs. The brick and concrete work involved was done by our own staff. Steam sterilising sinks have been provided in Wards IX. and X. for sterilising dishes, &c., and a steam-hot closet and plate has been fitted in the kitchen of the Sanatorium block (Ward X.). These facilities help greatly in serving dinners hot. The sterilisation of dishes in the Sanatorium is also a very desirable feature which is now an accomplished fact.

The central heating in the other wards has been increased by the addition of a radiator in the corridor, and one in the bathrooms attached to each block.

Washhand basins with hot and cold water have been installed in Wards VI., VII. and VIII., and a considerable amount of plumbing repair work was carried out in these blocks while they were being prepared for painting.

A continuous drying machine capable of practically unlimited output has been installed in the laundry in place of the old drying

horses. A Gladiron machine for simplifying the work of ironing has also been fitted in the laundry.

A new drilling machine and electric saw have been fitted in the engineer's workshop.

The Engineer has prepared a scheme for a new boilerhouse and boilers, and for generating our own electricity at an estimated cost from $\frac{1}{4}$ d. to .36 of a penny per unit. This scheme has passed the City Council and is before the Ministry of Health.

A new Morris motor van has been provided in place of the old Ford van, which was worn out.

Grounds.

A further section of the main road has been reconstructed, and now there is a good tarred surface along the whole length of the main drive from the gates to the Sanatorium Recreation Room. Certain side roads have also been covered with tar-macadam.

The Groby Road frontage has been improved by clearing out the old overgrown shrubbery, and planting three rows of flowering shrubs behind the golden privet hedge.

The open ditch running down from the Sanatorium blocks has been drained and covered in, and this has greatly improved the appearance of the grounds at this part.

The appearance of the grounds has been further improved by bringing more rough grass under the motor mower. A hard tennis court of the Griselda type (granite dust) has been constructed by our own gardeners with the help of unemployed labour. This has proved a great boon to the staff, and has been used to great advantage.

Visitors and patients have repeatedly expressed their appreciation of the beauty of the grounds.

The improvements in building equipment and grounds, detailed above and in last year's report have done much to bring the institution up to a high modern standard.

TABLE A.

Number of Patients Admitted, Discharged and Died during 1928.

DISEASE.	Remaining 31st December, 1927.	Admitted during Year.	Discharged during Year.	Died during Year.	Remaining
					31st December, 1928.
Scarlet Fever	64	952	982	2	32
Diphtheria	56	425	434	16	31
Enteric Fever	—	6	6	—	—
Measles	—	2	2	—	—
Erysipelas	4	27	26	2	2
Cerebro-Spinal Fever	—	2	1	—	—
Poliomyelitis	4	1	5	—	—
Puerperal Fever	—	7	6	—	1
Other Diseases	4	21	17	4	4
Smallpox	—	86	63	—	23
Smallpox Contacts	6	1	—	—	5
Tuberculosis :—					
Observation Cases	1	38	36	—	3
Adults	90	320	282	28	100
Surgical	28	38	37	2	27
Children	37	150	171	—	16
Discharged Soldiers	5	6	8	2	1
		—514	—498	—32	—144
Total	..	293	2087	2077	245

TABLE B.

Patient Days.

			For 12 months ending Dec. 31st, 1928.	For 12 months ending March 31st, 1929.
Smallpox	..	..	1281	2997
Smallpox Contacts	..	..	20	338
Scarlet Fever	..	..	23641	19855
Diphtheria	..	..	16609	13207
Enteric Fever	..	..	303	303
Measles Erysipelas	..	..	695	636
Poliomyelitis	..	..	193	—
Other Infectious Diseases	..	..	753	718
Tuberculosis :—				
Adults	..	..	37608	39215
Discharged Soldiers	..	..	887	563
Children	..	..	10088	10318
Surgical Cases	..	..	11984	9283
Observation Cases	..	..	614	473
			104676	97906

SUMMARY.

Infectious Diseases	..	..	43495	38054
Tuberculosis	..	..	61181	59852
Total	..	..	104676	97906

TABLE C.
City of Leicester.
ISOLATION HOSPITAL AND SANATORIUM.

**Income and Expenditure for the two years ending
31st March, 1929.**

EXPENDITURE.	Year 1927-28.			Year 1928-29.		
	£	s.	d.	£	s.	d.
Salaries and Wages	10700	18	8	11847	15	6
Superannuation : Corporation's Contributions and Additional Allowances	368	3	10	382	10	3
Provisions	7824	3	2	8292	7	0
Drugs, Medical Appliances, &c.	1569	3	7	2417	0	0
Fuel, Light and Water	5009	17	10	4346	7	7
Furniture, Bedding and Linen	1679	19	7	1286	11	1
Crockery and Hardware	237	16	8	299	0	4
Uniforms and Dresses	202	7	6	186	13	2
Cleaning Materials	320	13	9	301	6	2
Laundry Materials	90	16	4	92	8	8
Structural Renewals, Repairs and Painting	6978	17	5	4216	7	0
Grounds, &c. (excluding wages)	318	1	9	417	9	3
Transport (excluding wages)	465	10	7	742	4	2
Printing, Stationery, Postage and Telephone	221	0	11	186	14	0
Rates and Insurance	1407	16	11	1422	12	2
Miscellaneous	140	17	1	455	13	2
Sanatorium School—Salaries, &c.	470	2	5	536	9	11
Occupational Treatment—Wages, Materials, &c.	524	2	11	562	18	0
X-Ray and Light Treatment Supplies	330	0	2	241	3	1
Total Expenditure	38860	11	1	38233	10	6
<i>Less</i> Sale of Produce (including supplies from Garden, &c., to Institution) and Miscellaneous Income	1007	13	3	1244	15	8
Net Expenditure for Maintenance	37852	17	10	36988	14	10
Net Expenditure per Patient Day	0	7	5	0	7	7
Income for Maintenance	17	10	0	121	15	1
*Net Cost (excluding Loan Charges)	£37835	7	10	£36866	19	9
Number of Patient Days	102,157			97,906		

*One half of the approved cost of treatment of tuberculosis patients is borne by the Government.

ALFRED RILEY,

City Treasurer.

16th July, 1929.

TABLE D.

As required by the Ministry of Health.

1.—Average Number of Beds Available for Patients during the Year 1928.

Observation.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total
	'Sanatorium' Beds	'Hospital' Beds	Disease of Bones and Joints	Other Conditions	
Adult Males	2	30	36	6	74
Adult Females	2	20	25	6	53
Children under 15	1	36	..	15	52
Total	5	86	61	27	179

2.—Return showing the Extent of Residential Treatment during the Year 1928.

	In Institutions on Jan. 1	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31
Number of Patients	Adults.	M. 56 F. 49	177	163 23	47
	Children.	M. 35 F. 20	89 76	114 1 ..	68 9 20
Number of Observation Cases	Adults.	M. .. F. 1	26 12	24 12 ..	2 1 ..
	Children.	M. .. F. ..	1 1	1 1 ..	.. .. ..
	Total	161	552	534 32	147

TABLE E. As required by the Ministry of Health.
Results of Treatment.

REPORT ON SANOCRYSIN (GOLD) TREATMENT OF PULMONARY TUBERCULOSIS.

General.

Sanocrysin is a complex chemical compound of Gold, Sodium, Sulphur and Oxygen, introduced by Moellgard of Copenhagen in 1924 for the treatment of Pulmonary Tuberculosis.

When it was first tried in this country, the dosage tended to be too high and it was for a time regarded with disfavour. During the past two or three years, with more cautious dosage, the results obtained have been much better. It is now used extensively in most large sanatoria throughout Europe.

Mode of Action.

The mode of action of Sanocrysin is not clearly understood. Moellgard claimed that it had a specific destructive effect on the germs of tuberculosis in the body. The evidence to-day is against this view. There is no doubt, however, that the preparation applied in carefully regulated doses to suitable patients causes many tuberculous deposits in the lungs to disappear. It may act as a mild irritant to the tuberculous focus and so stimulate the healing power of the blood and cells which surround the focus. If the doses are too large the irritation is too great and the disease advances rather than disappears.

Dosage.

Sanocrysin solution is injected directly into the veins of patients in gradually increasing doses at intervals of 5 to 7 days. A course of treatment extends over 2 to 3 months, during which time the patient is kept in bed. A number of our patients have had a shorter second course of treatment after an interval of about 2 months. The second course extends over 6 to 8 weeks as a rule.

Reactions.

Certain unfavourable reactions may occur, such as attacks of vomiting and diarrhoea, irritation of kidneys, ulcers in the mouth, rashes in the skin, and rises of temperature more or less prolonged. With cautious dosage and proper selection of cases these reactions can nearly always be controlled and they rarely cause any permanent damage. In a few cases the treatment must be discontinued owing to severe reactions.

Selection of Cases.

Twenty-two cases of various types have been treated to a conclusion in Leicester during the past year. The type in which the best results were secured was the **middle case**, neither early nor too advanced, and which did not appear to be responding well to routine Sanatorium treatment. Fourteen cases of this type were treated. In six of these the results were remarkably good—results which could never have been secured in the ordinary course of sanatorium treatment. In the other eight cases in this group the results were also good but were such as might have been secured by very prolonged sanatorium treatment.

Four early cases were treated and were improved, but the improvement was not striking and might have been obtained by other means.

Three advanced cases were treated. One was improved and two appeared to be the worse for the treatment. The conclusion reached was that **the middle case with active disease in both lungs, not rapidly going downhill, but yet not responding well to routine measures, was the type of case in which the best results were to be expected.**

Results obtained in suitable type of case.

The sputum was diminished and in 11 cases disappeared completely. T.B. disappeared from the sputum for a time, but generally reappeared after a time if sputum persisted.

X-Ray films showed a remarkable clearing of diseased areas in the lungs. This was a very striking feature in certain cases. The degree of clearing exhibited has not to my knowledge been obtained previously, except in the most favourable cases after many years of sanatorium or similar routine treatment.

Blood tests before and after treatment indicated remarkable improvement in tissue healing.

Gain in weight was rapid after the injections ceased.

Temperature became normal and the patients were able to be up and on full working grade.

The **immediate** results have thus been remarkably good. The **late** results say after 5 years have not yet been observed and will probably depend upon the patients' ability to conform to the rules of the tuberculous life.

Cost.

The cost of Sanocrysin for the first course is about £3 and for the second course £2 6s. 8d. per case. The labour involved in giving the injections, making the necessary tests and examinations and keeping records, is, however, very considerable and makes the treatment expensive. Sanocrysin treatment appears to be justified only for patients who are able and willing to make the sacrifices necessary to maintain their health afterwards.

H. STANLEY BANKS.

Leicester, 6th June, 1929.

APPENDIX III.

Report of the City Analyst

For the Year 1928.

During the year 1928 the total number of samples reported upon was 1,524, including 921 taken under the provisions of the Sale of Food and Drugs Acts; the latter number being equivalent to 3.7 samples per 1,000 of the City population.

New conditions of food supply are arising. Butter and margarine are supplied by trading companies having enormous capital and dealing in immense amounts of produce blended to a uniform standard.

A great part of the milk supply has been mixed in bulk before being retailed to the public. This minimises the chance of detection of watering and necessitates the sampling of milk as it is received by the dealer from the individual farmer.

8.4 per cent. of 520 samples of milk reported upon were deficient either in fat or non-fatty solids.

239 milks, bottled according to the Regulations of the Ministry of Health, were examined bacteriologically and chemically. It is satisfactory to note that the bacterial condition of the milk supply is improving.

Result of Bacteriological Examination.

	Total No. examined.	Passed as satisfactory.	Total count	B. Coli too high.	B. Coli numerous.
Certified Milk	.. .. 28	23	4	3	
Grade A Tuberculin Tested	.. 71	66	3	4	
Grade A Milk	.. .. 137	117	2	10	
Pasteurised Milk	.. ..	—	—	—
New Milk	.. .. 3	3	—	—	
Total	.. .. 239	209	9	26	

22 of the bottled milks showed an average deficiency in fat of 14 per cent. of the required amount, and 5 samples were deficient in non-fatty solids to the extent of 2 per cent., so that 11.3 per cent. of the bottled milks were not up to standard.

A reasonable explanation of this may be that there is a variation in fat during stages of milking and the producer does not bulk the milk before bottling.

94 samples of drugs were examined and 5 samples did not come up to the required standard.

Of 307 samples of foods (other than milk) 9 samples or 2.9 per cent. were reported against.

The enforcement of the Regulations of the Sale of Food and Drugs and the Public Health Acts has discouraged and made obsolete the gross adulteration and crude sophistication of other days, and the chief function of the Public Analyst relates to the question of compliance with required standards and of Nature and Quality as demanded by the purchaser.

Sometimes small amounts of so-called improvers are added to foods by traders desirous of selling articles inferior in appearance so that frequent search is necessary for the presence of undesirable substances.

New natural products are constantly being utilised in food supply and require attention by the Analyst.

The increasing co-operation of manufacturers and traders in determining required standards is in the public interest. With the enforcement of Regulations there is less and less of misdescription or of wrong labelling.

It is with pleasure that I gratefully acknowledge the energy and zeal of Mr. F. C. Bullock, B.Sc., F.I.C., who has spared no effort to maintain a full and effective output of work from the laboratory, especially in regard to bacteriological examinations.

S. F. BURFORD.

TABLE A.

Samples Analysed under the Food and Drugs Acts during 1928.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Milks	126	121	125	148	520
Condensed Milk	6	1	1	1	6
Cream	8	8	1	17	
Ice Cream	4	1	1	4	
Salad Cream	1	1	1	1	
Butter	9	4	1	19	
Lard	10	1	6	16	
Dripping	6	1	6	6	
Margarine	7	6	1	6	
Potted Meat	6	1	6	6	
Sausage	6	1	6	12	
Fish Paste	6	1	1	6	
Fish - tinned	1	3	1	3	
Mincemeat	6	1	6	12	
Pickles	6	1	1	6	
Peas - tinned	1	1	1	1	
Peas - bottled	2	1	1	2	
Coffee	6	6	1	12	
Coffee Essence	1	1	6	6	
Cocoa	1	9	1	9	
Chocolate	1	1	1	1	
Sugar	2	1	1	2	
Sweetmeats	1	1	12	12	
Crystallized Fruits	1	1	1	1	
Dried Fruits (Raisins, Currants, Sultanas)	1	1	24	24	
Fruits - tinned	1	3	1	3	
Jam	6	7	1	13	
Biscuits	6	1	1	6	
Cakes	4	1	1	4	
Sponge Cakes	2	1	1	2	
Flour	1	12	12	12	
Corn Flour	1	1	1	1	
Mustard	1	6	1	6	
Pepper	1	1	1	1	
Cherry Brandy	1	1	1	1	
Cyder	4	1	1	3	
Beer	1	12	24	36	
Spirits	8	1	1	8	
Wines	1	1	6	6	
Almond Essence	1	1	1	1	
Bismuth Carbonate	6	1	1	6	
Camphorated Oil	6	1	12	15	
Glauber's Salts	1	6	1	6	
Glycerine of Borax	12	1	1	12	
Ground Ginger	6	1	1	7	
Ground Nutmeg	1	1	1	1	
Health Salts	1	6	1	6	
Hydrogen Peroxide	12	1	1	12	
Lime Water	1	6	1	6	
Sweet Spirit of Nitre	1	14	14	14	
Quinine Sulphate	6	1	1	6	
Totals	224	210	184	303	921

APPENDIX IV.

REPORT OF CHIEF SANITARY INSPECTOR.

Staff.

The Inspection Staff consists of a Chief Inspector, a Meat Inspector whose whole time is occupied at the Corporation Slaughterhouses at the Cattle Market, and fourteen District Sanitary Inspectors.

There is no change in the staff to record during the year.

Two Inspectors attended a course at the Midland Agricultural College on "The Production of Clean Milk."

A third-year course on "Smoke Abatement and Boiler-room Economics" and a course on "Sanitary Science as applied to Buildings and Public Works" were arranged for at the Leicester College of Technology, and these lectures and demonstrations were fairly well attended by your Sanitary Inspectors. Following upon these courses, Inspector W. W. Baum obtained the certificate of the Royal Sanitary Institute for "Sanitary Science as applied to Buildings and Public Works."

For next year's winter session a course of lectures and demonstrations in "The Bacteriology of Meat Inspection" is being arranged for Sanitary Inspectors.

Synopsis of Sanitary Inspection Work.

An "inspection" is the first visit made to premises.

A "re-inspection" is a visit made after notice has been given for the remedying of a defect.

		Inspections.	Re-Inspections.	Total.
Re Accumulations	..	174	2	176
Re Animals, Poultry, Swine, &c.	..	76	—	76
Ashpits and Ashbins	..	339	118	457
Bakehouses—Factory	..	187	—	187
Non-Factory	..	149	—	149
Canal Boats	..	56	—	56
Cesspools	..	2	—	2
Closets—Water	..	568	182	750
Pails	..	22	—	22
Common Lodging Houses—Day	..	572	7	579
Night	..	50	—	50
Complaints Received	..	2115	2605	4720
Complaints Confirmed	..	1919	5804	7723
Cowsheds	..	62	—	62
Dairies, Milkshops and Milkstores	..	578	—	578
Dangerous Structures	..	53	12	65
Drains Inspected—Smoke Tests	..	4723	1275	5998
Water Tests	..	—	—	—
Chemical Tests	..	6	4	10
Colour Tests	..	73	—	73
Drains Inspected	..	5171	7418	12589
Entertainment Houses	..	9	—	9
Factories	..	110	1	111
Fish Frying Premises	..	69	—	69
Food Manufacturing Premises	..	146	—	146
Houses re Contagious Disease	..	1968	13	1981
Houses re Contagious Disease				
Enquiry	..	1585	3	1588
Houses re Disinfection	..	343	—	343
Housing Acts—Houses	..	786	8841	9627
Houses Let in Lodgings—Day	..	1	—	1
Hotel and Restaurant Kitchens	..	29	—	29
Icecream Premises	..	38	—	38
Meeting with Owner or Tradesman	..	3229	—	3229
Offensive Trade Premises	..	307	—	307
Piggeries	..	26	—	26

		Inspections	Re-inspections	Total
Shops—Meat	..	1655	—	1655
Fish	..	110	—	110
Fruit	..	45	—	45
Schools	..	13	—	13
Slaughterhouses (Private)	..	7414	—	7414
Smoke Observations	..	342	—	342
Special Interviews with Stokers, &c.	..	297	—	297
Special Visits	..	2860	—	2860
Sewers, &c.	..	16	—	16
Street Gullies	..	6	—	6
Streets or Back Roads	..	6	—	6
Tips	..	14	—	14
Urinal—Public	..	70	—	70
Private	..	15	—	15
Van Dwellings	..	517	—	517
Wells	..	15	—	15
Workshops and Workplaces (excluding Bakehouses)	..	268	—	268
Yards and Courts	..	311	148	459
Grand Totals	..	39545	26483	65948

Many thousands of visits have been made to the Slaughterhouses at the Cattle Market in addition to the above.

Notices—Served	—Informal	..	..	2062
	—Formal	..	..	144
Complied with—Informal	..	..	..	1534
	—Formal	..	..	200
Samples—Food and Drugs Acts	..	..	..	927
Water	..	..	..	23
Bacteriological	..	..	..	330
Milk for T.B.	..	..	..	120

CANAL BOATS.

The whole of the "available" boats on the register, viz., 50 are "Narrow" boats. 63 boats were inspected during the year; these were occupied by 79 males, 35 females, 25 children over 5 years and 12 under 5 years.

Condition of boats clean and satisfactory with the exception of 13.

Contraventions and defects:—

Cabins dirty or requiring repair 8; cabins requiring re-painting 9; cabins not adequately ventilated 2; no water vessels or leaky water vessels 3; leaky boats 1; no bilge pump provided 1; defective bilge pump 1;

These defects were remedied without legal proceedings.

One "Narrow" boat was re-registered.

DAIRIES AND COWSHEDS.

Milk and Dairies (Amendment) Act, 1922.

Milk and Dairies Order, 1926.

Statutory action was taken under the above enactments against a cowkeeper and retailer of milk on the grounds that his premises were insanitary and that he was not taking the necessary precautions in his business to prevent danger to the public health. The premises are situated in the centre of the City in a congested area.

The cowkeeper appeared before the Health Committee and stated his case, and was informed that he must discontinue using the premises as a cowshed and dairy after a given date. He shortly afterwards vacated the premises and his name was removed from the register.

Seven applications for registration as purveyors of milk were refused owing to the premises not complying with the requirements of the above Order. In all these cases the applicants proposed to store milk in small crowded general shops; it was not necessary to take statutory action.

Legal proceedings were instituted in two other instances and convictions obtained against persons carrying on the trade of purveyor of milk without being registered as such.

DISINFECTION.

The total number of articles of clothing, bedding, &c., disinfected by steam during the year was 1,428. The number of houses or parts of houses disinfected was 2,292.

DRAINS.

Voluntary Cleansing of Stopped Drains by Health Department.

116 drains were attended to, and of these 78 were unstopped immediately. In the remaining 38 cases the owners' attention had to be called to them.

ADMINISTRATION OF FACTORY AND WORKSHOPS ACT, 1901.

In connection with Factories, Workshops, Workplaces and Home Work.

1.—Inspection of Factories, Workshops and Workplaces.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
(1)	(2)	(3)	(4)
Factories	111	8	—
Workshops	268	3	—
Total	379	11	—

2.—Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects		Number of Prosecutions.
	Found.	Remedied.	
(1)	(2)	(3)	(4)
Nuisances under the Public Health Act :—			
Want of Cleanliness ..	7	7	—
Want of Ventilation ..	2	2	—
Overcrowding	—	—	—
Other Nuisances ..	14	12	—
Sanitary Accommodation			
Insufficient	3	3	—
Offences under the Factory and Workshops Act ..			
Total	26	24	—

3.—Home Work.

The number of lists received from employers was as follows :—

	Twice in the year.		Once in the year.	
	Lists.	Outworkers.	Lists.	Outworkers.
Wearing Apparel (making) ..	50	325	46	722

4.—Other Matters.

CLASS (1).

Matters notified to H.M. Inspector of Factories:—

Failure to affix Abstract of the Factory and Workshops Acts (S. 133, 1901) None

Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Acts (S. 5, 1901)	Notified by H.M. Inspector	24
	Reports (of action taken) sent to H.M. Inspector	24

Underground Bakehouses (S. 101) in use at the end of the year 1

HOUSING.

See report, page 39 and Table.

A large amount of time has been spent in inspecting the houses in the Green Street, Abbey Street, Mansfield Street, Sandacre Street district, which has now been represented as an Unhealthy Area. It is the first area to be so dealt with, and the carrying out of all details necessary for such a scheme is a new experience so far as Leicester is concerned.

Improvements to Houses.

No. of Houses.

Separate internal water supply in place of taps in common yards	339
Additional water closets	234
Houses with common yards and common sanitary conveniences, which have been provided with separate yards, separate sanitary conveniences, internal sinks and taps, &c.	55

FOOD SUPPLIES—Supervision of.

In connection with the above it has been necessary during the year to institute legal proceedings in quite a number of cases. The offences include not only the offering of diseased or unsound foodstuffs for sale, but allowing contamination of foodstuffs in shops, breaches of the regulations and byelaws governing the slaughtering of animals, two cases of obstruction of Sanitary Inspectors, a case of a brutal assault on an Inspector in a slaughterhouse, and the filling of bottles with milk on a public highway. Details of these and other police court proceedings appear on pages 110 to 115.

While we feel that with the co-operation of the Leicester butchers in giving notice of slaughter we are able to examine the maximum number of carcases during the process of slaughter—allowing, of course, for the disadvantages of the private slaughterhouse system—there is undoubtedly throughout the country a great leakage of meat which gets through to the public for consumption without previous inspection. This meat which escapes inspection is prepared for sale in knackers' yards by horse slaughterers. Diseased and inferior animals (mainly cows) are sent to such premises ostensibly for use as food for dogs, cats, poultry, &c., but the carcases are dressed and prepared in all respects as a butcher dresses and prepares a carcase for human consumption. During the process of preparation evidence of disease, if it exists, is removed and destroyed, and only the best portions, usually the four quarters, are sent out for sale for human food.

When an Inspector visits a knacker's yard the horse slaughterer will always say that the carcases he is dressing are not for human consumption.

It is disquieting to know that some of these persons who carry on business as horse slaughterers in one district also carry on business in the sale of butchers' meat in other districts.

These knackers' yards are mostly situated in remote rural areas where adequate inspection is difficult to maintain, and where the City Inspector, of course, has no jurisdiction. When any such meat comes into a city there is the utmost difficulty in tracing the meat back to its source, or in proving that the animal may have been diseased at the time of slaughter.

In the case of the two carcases of cow beef found and seized in Leicester in April, 1928, referred to in Police Court proceedings on page 142, I was able to trace the animals and prove finally that they were slaughtered and dressed by a horse slaughterer at his knacker's yard just outside the city, and, further, I obtained an admission that they were diseased at the time of slaughter.

In spite of all this the defendants engaged the services of one of the leading barristers in the country when the case came before the Court, and with the help of four local Veterinary Surgeons, sought to prove that the meat in question was not diseased and not unfit for human consumption.

While we can exercise control over the one knacker yard in our own area, we are powerless with regard to those situated in the

districts surrounding the city, and I am of the opinion that additional legislation is necessary to give better control of all such premises, till the time comes that they can be abolished. The abolition of the private (butcher's) slaughterhouse alone, and the centralisation of slaughtering in Public Abattoirs will not make the meat supply safe. The Knackers' Yards must go.

TABLE A.

			Tons.	Cwts.	Qrs.	Lbs.
Meat	..	..	..	62	4	0
Fish	..	..	..	37	19	0
Fruit	..	..	..	1	19	1
Vegetables	..	..	6	16	3	12
Rabits	..	..	..	..	..	2007
Preserved Foods (Tinned Goods)	..	..	..	..	..	10584
Poultry	..	..	..	..	head	22
Eggs	..	..	..	..	..	586
Oysters	..	..	..	..	..	400
Sweets	..	..	..	..	..	lbs. 358

TABLE B.

Total weights of British and Imported Meat and Offal rejected, at various premises.

		Tons.			Cwts.			Qrs.			Lbs.			Imported Offal.			Imported Meat.			British Offal.			Tons.			Cwts.			Qrs.			Lbs.		
		British Meat.			Imported Meat.			British Offal.			Imported Offal.			British Meat.			Imported Meat.			British Offal.			Tons.			Cwts.			Qrs.			Lbs.		
Shops	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.	Tons.	Cwts.	Lbs.			
Private Slaughterhouses	7	16	3	5	-	-	-	-	-	-	3	6	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Cattle Market	"	39	7	1	3	-	-	-	-	-	7	17	1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Corporation Cold Stores	-	5	1	6	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Retail Market	..	8	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Wholesale Market (Imported)	..	-	1	-	-	-	-	5	2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Railway Stations	..	2	2	1	1.5	-	-	-	-	-	-	-	-	4	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Totals	..	50	1	2	2	-	-	7	1	26	11	10	2	0	-	-	4	2	6	-	-	-	-	-	-	-	-	-	-	-				

TABLE C.

Total weights of Carcasses, Parts of Carcasses, and Offal, rejected for all diseases.

	Carcase.			Parts of Carcasse.			Offal.			Total.		
	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.
Tuberculosis	15	11	3	8	1	11	0	0	5	0	0	26
Other defined Diseases	31	10	2	10	1	8	0	5	6	10	1	4
Total	..	47	2	18	2	19	0	12	11	10	2	2

TABLE D.

Total number of Carcasses found affected, for various diseases.

Carcasses affected with Tuberculosis.	Carcasses affected with other defined diseases.			Total number of Carcasses affected. (All diseases.)		
	Carcasses	examined	not available	Carcasses	examined	not available
104	797	1180	383	797	1180	383

Number of Carcasses showing evidence of Tuberculosis and number of entire Carcasses rejected.

	Beasts.	Calves.	Sheep.	Lambs.	Pigs.	Total.
Number of Carcasses affected ..	269	1	—	—	—	113
Number of entire Carcasses rejected ..	79	—	—	—	—	93

TABLE F.

Total number of Carcasses rejected for Tuberculosis and other defined diseases.

Disease.	Bulls.	Cows.	Heifers.	Bullocks.	Calves.	Sheep.	Lambs	Pigs.	Total of all Carcasses.
Tuberculosis	1	73	5	1	1	1	1	13	93
Other defined diseases	2	92	6	10	29	132	27	101	399
Totals	..	3	165	11	40	30	132	27	412

TABLE G.

Total number of all Carcasses, parts of Carcasses, and Offal, rejected for all diseases.

Disease.	Carcasses.	Parts of Carcasse.	Offals of Carcasse.	Total number affected.
Tuberculosis	93	21	24	383
Other defined diseases	309	47	351	707
Totals	..	492	620	1180

TABLE H.

Total number of Carcasses, parts of Carcasses and Offal condemned in :

Carcasses	Parts of Carcasse.	Offals of Carcasse.	Total number affected
Corporat'n Slaughter Houses (including Co-operative Society Slaughter House at Cattle Market)	24	349	752
Private Slaughter Houses	95	18	226
Shops, Markets and other Premises	..	38	89
Totals	..	492	620

TABLE I.

Tabulated List of other defined Diseases and their incidence in Carcasses rejected.

Disease	Bulls.	Cows.	Heifers.	Bullocks.	Calves.	Sheep.	Lambs.	Pigs.	Total.
Bropy ..	1	47	2	1	9	62	8	5	135
Fevered, including	2	15	2	5	26
Enteritis	8
Parturition	7
Pneumonia	10
Pneumitis	2
Pathological changes	2
Decomposed	24
Emaciated	9
Suffocation, including :—
Asphyxia
Dead Animals
Moribund
Immaturity
Damaged in transit
Septic condition, including :—
Gangrene
Septic Meritis
Septicæmia
Rickets
Physicked
Johnnes' Disease
Tumour
Swine Fever
Icterus
Poisoning
Swine Erysipelas
Black Quarter
Lymphadenitis
Nephritis
Pericarditis
Total	29	132	27	101	400

SAMPLING.

Sale of Food and Drugs Acts.

NUMBER OF SAMPLES TAKEN FOR CHEMICAL ANALYSIS.

1924	1925	1926	1927	1928
355	532	686	847	927

There has been a considerable increase during the past five years in the number of samples taken for analysis.

Milk (Special Designations) Order, 1922.

NUMBER OF SAMPLES TAKEN FOR BACTERIOLOGICAL EXAMINATION.

1924	1925	1926	1927	1928
113	65	185	308	330

MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.

(This Act came into operation on 1st September, 1925.)

Number of samples of milk taken for microscopical and biological examination for Tubercl Bacilli 120

Number taken during previous year 73

	Number of Samples taken.	Number reported containing Tubercl Bacilli.	Number reported Negative.	Number unsatis- factory although Negative as regards Tubercl Bacilli.
Cowkeepers with registered premises within City boundaries	6	0	4	2
Cowkeepers with premises outside City boundaries	114	6	105	3
Totals	120	6	109	5

City Herds.

As a result of the above examinations (the two unsatisfactory reports) a cow suffering from suppuration of the udder was discovered in one of the city herds.

A notice was served upon the owner of the animal calling his attention to the provisions of the Milk and Dairies (Consolidation) Act, 1915, S. 5, which prohibits the sale of milk from such an animal for human consumption. The animal was removed from the herd and slaughtered voluntarily in one of our private slaughterhouses, and postmortem examination revealed an indurated udder and tuberculosis of the lungs (localised).

County Herds.

Of the 114 samples of milk produced outside the City, the 6 which were reported to contain Tuberle Bacilli were referred to the County Authority for action, and in due course reports were received from them of action taken under the Milk and Dairies (Consolidation) Act, 1915.

The three other unsatisfactory reports were also referred to the County Authority under another section of the Act. These reports on the postmortem examination of the inoculated guinea pigs are as follows :—

- (1) Lumbar and Inguinal glands enlarged and contained much pus.
- (2) Guinea pig succumbed to an acute infection by some organism, other than tubercle, contained in the milk.
- (3) Lumbar and Inguinal glands caseous. No Tuberle Bacilli found.

SLAUGHTERHOUSES.

During the year one Registered Private Slaughterhouse was removed from the Register, reducing the number to 43. No compensation was paid in respect of it.

One Private Slaughterhouse was granted an annual licence.

One Knackers' Yard was granted an annual licence.

Particulars of all Slaughterhouses in the City.

Registered Private Slaughterhouses	43
Licensed Private Slaughterhouses (includes one Knackers' Yard)	2
Corporation Slaughterhouses situated at Cattle Market and let off as Private Slaughterhouses	19
Total Slaughterhouses	64

SMOKE ABATEMENT.

Action taken re smoke nuisances:—

Observations taken of chimney stacks	342
Chimneys reported for causing nuisance	8
Cautions by Inspectors	5
Interviews of Engineers or Stokers by Inspectors	6
Informal Notices or Letters sent	8
Chimneys reported to Health Committee	6
Prosecutions	0

POLICE COURT PROCEEDINGS.

Public Health Acts.

Unsound Food	4
For the abatement of nuisances	11
Contravention of Slaughterhouse Bye-Laws	4
Public Health (Meat) Regulations, 1924	4
Sale of Food and Drugs Acts	8
Milk and Dairies Order, 1926	3
Bye-Laws respecting Nuisances	1
Leicester Corporation Act, 1921 (Filthy Tenant)	1

POLICE COURT PROCEEDINGS.

Acts, Byelaws or Regulations under which proceedings were instituted.	Default or Offence.	Result	Fines £ s. d.	Costs, £ s. d.
Public Health Act	.. Using water for drinking and domestic purposes from a polluted well.	Case withdrawn on well being sealed.	—	—
Ditto	Ditto	Ditto	—	5 0
Ditto	Ditto	Defendant ordered to cleanse well and further analysis to be made afterwards.	—	5 0
Ditto	Ditto	Ditto	—	5 0
Ditto	Failure to abate nuisance arising from defective drains.	Case withdrawn after work was done on payment of costs.	—	5 0
Ditto	Ditto	Ditto	—	9 10 0
		Carried forward ..	—	10 10 0

POLICE COURT PROCEEDINGS Continued.

Acts, By-laws or Regulations under which proceedings were instituted.

Default or Offence.

		Result	Fine £ s. d.	Costs £ s. d.
By-laws respecting Nuisances	Failure to provide a receptacle for stable manure.	Brought forward Case withdrawn after compliance with notice and on payment of costs.	10 10 0 5 0	
Public Health Acts	Nuisance caused by the use of land by van dwellers.	Case withdrawn on land being vacated and cleaned. Order made by Court prohibiting the occupation of the land by van dwellers for a period of 5 years.		
Ditto	Ditto	Case withdrawn after vans had been removed.		5 0
Public Health Act	Failure to abate nuisance from the keeping of animals.	Case withdrawn after animals had been removed and on payment of costs.		5 0
The Leicester Corporation Act, 1921.	Dwelling house habitually maintained in filthy condition by the tenant. Corporation applied to Court for order for tenant to quit premises.	Case adjourned several times and finally withdrawn on tenant quitting premises.		11 5 0

POLICE COURT PROCEEDINGS—Continued.

Acts, Byelaws or Regulations under which proceedings were instituted.

Public Health Acts	Two defendants found in possession of meat deposited for sale and intended for the food of man, viz. :- the carcasses of two cows which had been slaughtered and dressed in a Knackers' Yard and sent to a butcher's shop in Leicester. Shopman summoned for obstructing Sanitary Inspectors and aiding and abetting.	Brought forward Conviction in all three cases:-	11 5 0
Bitto	Butcher in possession of 3 pieces of meat (Pork) deposited for sale and intended for the food of man; also for obstructing Sanitary Inspectors	Conviction and fine of £10 in respect of each piece. For obstructing Inspectors	20 0 0 14 10 3
Public Health (Meat) Regulations, 1924 (Part 2).	Removal of internal organs of beast from slaughterhouse before inspection.	Case dismissed.	30 0 0 5 0 0 6 6 0
Public Health (Meat) Regulations, 1924. By-law respecting Slaughterhouses.	(a) Failure to notify intention to slaughter animals for food. (b) Slaughtering pigs without previous stunning with a mechanically operated instrument. (c) Slaughtering on unlicensed premises.	Case dismissed.	76 0 0 32 10 3
Public Health Acts.			

POLICE COURT PROCEEDINGS - Continued.

Acts, Byelaws or Regulations under which proceedings were instituted

Defendant or Offence	Result	Fines £ s. d.	Costs. £ s. d.
Public Health (Meat) Regulations, 1924 (Part 5).	Brought forward Case withdrawn on glass screen being fixed, and on payment of costs.	76 0 0	32 10 3
Ditto	Failure to prevent contamination of bacon in grocer's shop by dust being blown thereon. Shop manager summoned for aiding and abetting.	—	—
Byelaws respecting Slaughtermen.	Failure to notify intention to slaughter animals for food on a Sunday.	Summons against firm dismissed.	—
Ditto	Ditto	Manager convicted	1 0 0
Ditto	Ditto	Conviction	—
Ditto	Slaughtering beast without previous stunning with a mechanically operated instrument. Master butcher summoned and slaughterman for aiding and abetting.	Case dismissed on payment of costs.	—
Milk and Dairies Order, 1926.	Carrying on trade as purveyor of milk without being registered as such.	Conviction	10 0
		Carried forward	79 0 0
			33 10 3

POLICE COURT PROCEEDINGS--Continued.

Acts, Byclaws or Regulations under which proceedings were instituted.	Default or Offence.	Result	Fines £ s. d.	Costs. £ s. d.
Milk and Dairies Order, 1926.	Carrying on the trade as a purveyor of milk without being registered as such.	Brought forward Conviction ..	79 0 0 1 0 0	33 10 3 —
Ditto	Filling bottles with milk on public highway.	Conviction ..	1 0 0	—
Sale of Food and Drugs Acts.	Four retailers, and farmer supplying same, summoned for selling adulterated milk.	Cases against all retailers dismissed.		
Retailers' Samples :		Farmer convicted ..	10 0 0	3 0 0
(1) 6 per cent. added water ; (2) 6 per cent. added water ; (3) 3 per cent. added water ; (4) 6 per cent. and 7 per cent. added water.				
Farmers' Samples :				
(1) 3 per cent. added water ; (2) 3 per cent. added water ; (3) 1.58 per cent. added water and 13.79 per cent. deficiency in fat ; (4) 8.68 per cent. deficiency in fat.				
Farmer was suspected, and to safeguard retailers the milk churns were kept under observation from the farm outside city area to the retailer's premises, and samples taken there.				
These showed 6 per cent. and 7 per cent. added water. (No. 4.)				
Carried forward ..		91 0 0	36 10 3	

Acts, Bye-laws or Regulations under which proceedings were instituted.	Default or Offence.	Result	Fines £ s. d.	Costs. £ s. d.
Sale of Food and Drugs Acts.	Selling adulterated milk :— 35 per cent. added water.	Brought forward Conviction ..	91 0 0 5 0 0	36 10 3
Ditto	Selling adulterated milk :— 5 per cent. added water 6 per cent. added water	Conviction in each case.	5 0 0 5 0 0 ..	— — —
		Total	106 0 0	36 10 3

ASSAULT ON SANITARY INSPECTOR BY BUTCHERS.

While one occasionally has to take proceedings for obstruction in the administration of the Public Health laws, proceedings for assault are fortunately very rare.

A serious assault was committed on a Sanitary Inspector (Mr. W. J. Parkinson) in a Private Slaughterhouse by two butchers, and the case is without precedent in Leicester as far as records show. The Inspector was carrying out his usual work of inspecting carcases in the slaughterhouse and was in fact accepting the surrender of some diseased portions of a carcase, when he was brutally assaulted by the two butchers (father and son), knocked to the floor of the slaughterhouse, and it was some time before he was able to escape over a fence and across the yards of some adjoining houses. In consequence of his injuries the Inspector was absent from duty for nearly two weeks.

The butcher (the son) was arrested and the next day was committed to prison for two months with hard labour. The case against the father was dismissed.

It was disclosed in the evidence that a prosecution was pending against the defendants for having in their possession diseased pork intended for sale for human consumption, and for obstructing myself and Mr. Parkinson in the seizure of the meat. There was also a previous case against them for removing the internal organs of a beast from the slaughterhouse before inspection.

F. G. McHUGH, M.R.San.I., M.S.I.A.,
Chief Sanitary Inspector.

Reports of the V.D. Medical Officers.

1.—Report on the Male V.D. Clinic.

By H. J. BLAKESLEY, F.R.C.S. (Eng.).

I beg to report on the work of the Male Venereal Clinic at the Royal Infirmary, under your control and that of the Ministry of Health, for the year ending December 31st, 1928.

During this period 579 patients presented themselves for diagnosis and treatment.

By clinical examination 124 were apparently suffering from syphilis and 455 from gonorrhœa. Of these 5 patients were proved to be suffering from both acute gonorrhœa and syphilis. 147, after repeated clinical and pathological examinations, were found to be non-venereal; 114 having been suspected of suffering from gonorrhœa and 33 from syphilis.

434 were City patients; 145 were County patients.

16,490 attendances were made by patients on the books; of these 3,798 received treatment for syphilis, 12,692 for gonorrhœa. 13,800 were City patients and 2,690 County patients. 5,436 of these attendances were at times other than when the clinic was in session, for irrigations and other intermediate treatment. 5,016 attendances were by City patients and 420 by County patients.

In every case treated the blood and discharges were submitted for pathological and bacteriological tests for the purpose of diagnosis, aid to treatment, evidence of progress, and proof of recovery. The cerebro-spinal fluid in some cases of neurosyphilis was submitted to Wasserman or other tests.

To patients suffering from syphilis 4,862 intravenous or inter-muscular injections of Salvarsan substitutes and 647 muscular injections of mercurial cream were administered, 4,979 for City patients and 530 for County patients.

To patients suffering from gonorrhœa, 11,220 intraurethral irrigations, anterior and posterior, were given, and instrumentation,

Instillation, vaccines, prostatic and urethral massage were practised as necessary treatment in a large number of these cases.

In-Patients.

67 patients were admitted to the wards, 40 being City and 27 being County patients; 11 were highly infectious; 11 cases acute epididymitis, 8 on admission, and three arose in course of treatment; 6 gonorrhœal rheumatism; 6 acute prostatitis; 3 penile and 1 perineal abscess. No case of gonorrhœal ophthalmia; 1 case of stricture of urethra with retention of urine—the result of old gonorrhœa insufficiently treated; 10 cases of chronic syphilis were admitted, suffering from this disease of the brain and spinal cord, the heart and the eye and syphilitic tumours (gumma of scalp and leg). One case of jaundice was admitted, but no case of arsenical dermatitis. Two deaths occurred, one moribund on admission of septicæmia, age 64, the other one of cerebral haemorrhage into lateral ventricle—on postmortem examination, Aneurism of Aorta and extensive Atheroma of heart and large vessels.

This patient, age 58, was admitted to ward for the purpose of giving a small dose of Neokharsivan, which was administered to him in bed. He collapsed and died four hours after intravenous injection of Neokharsivan .45 gram.

One case of gonorrhœa, owing to neglect, or ineffective treatment, developed cystitis pyelitis and disorganisation of right kidney. This was removed and the cystitis and urethritis disappeared, and the young man was discharged with no evidence of venereal disease.

Results.

The number of patients who ceased attendance before completing the first course of treatment were:—

Syphilis ..	..	..	..	18
Gonorrhœa	..	..	..	43

Who ceased attendance after completing one or more courses, before completion of treatment necessary:—

Syphilis ..	..	..	..	24
Gonorrhœa	..	..	..	40

Who ceased attendance after completion of treatment, but failed to submit themselves to final tests:—

Syphilis ..	..	..	..	33
Gonorrhœa	..	..	..	73

Transferred to other clinics :—

Syphilis ..	..	..	..	14
Gonorrhœa	..	..	..	37

Transferred from other clinics :—

Syphilis ..	..	..	..	10
Gonorrhœa	..	..	..	23

Those who completed treatment and submitted themselves to repeated tests, and were clinically and pathologically proved to be cured :—

Syphilis ..	..	..	..	24
Gonorrhœa	..	..	..	140

The patients described as cured are submitted to exhaustive tests, in accord with the rules laid down by the Ministry of Health.

Points of Material Interest.

The new Venereal Wards were opened in August and serve their purpose infinitely better than the old Isolation block.

The new patients presenting themselves for treatment show an increase of one over last year.

It is highly satisfactory to note that a great increase of those suspecting themselves should have come to the clinic to find that they are free from evidences of either of these diseases.

Every effort has been made to persuade and encourage patients to persist in their attendance for treatment until all symptoms have disappeared and the necessary tests have been made to prove their cure complete.

Dr. Millard, the City Medical Officer of Health, has paid three official visits of inspection during the year.

The Board of Governors of the Royal Infirmary have afforded me every assistance and facility for the efficient working of the clinic, and the new In-Patient Department for Venereal Diseases is of great assistance in the general treatment of the In-Patients and those requiring intermediate attention.

My thanks are due to my medical and lay helpers for their zealous and loyal support in the conduct of the Clinic.

HENRY J. BLAKESLEY,

Medical Officer in Charge.

1st March, 1929.

2.—Report on Female V.D. Clinic for Year 1928.

By BESSIE W. SYMINGTON, M.D., B.S. (Lond.).

The total number of patients seen for the first time was 423, viz. :—

145 suffering from syphilis;
180 „ „ gonorrhœa;
98 showing no signs of venereal disease.

Under the last category are included all cases examined as contacts :—

- (a) Children of infected mothers.
- (b) Mothers of infected children.
- (c) Wives of infected husbands.
- (d) Babies of mothers treated during pregnancy.

The number of City patients examined for the first time was 300, viz. :—

104 suffering from syphilis.
136 „ „ gonorrhœa.
60 showing no signs of venereal disease.

Out-Patients.

The total number of attendances of all patients was 9,558. 7,492 were seen by the Medical Officer at the Clinics, and 2,066 were seen at other times for prescribed treatment.

The total attendances of City patients numbered 6,900. Of these 3,074 attendances were for syphilis, and 3,755 were for gonorrhœa. 71 attendances were made by patients not suffering from venereal disease.

Syphilis.

Treatment has been by (a) injection, (b) drugs given by mouth, (c) inunction.

The chief drug used is Neokharsivan administered by intravenous injection. This is given as routine to all adults and also to children whenever the intravenous method can be used. Stabilarsan is given in some cases. Other preparations employed have

been Sulfarsenol, Bismuth (hypoloid), Thiotab, and Intramine. These are given by the intramuscular method.

The aggregate number of injections given at all the Clinics male and female—City and County was 4,680, and of these 1,383 were given to female patients from the City.

Mercury, Potassium and Bismuth have been given by mouth at the same time. Mercury is also given in some cases by injection and inunction.

Gonorrhœa.

During 1928 the number of cases has again increased.

Treatment carried out has been :—

- (1) **Local**—by disinfection of vagina, cervix and urethra, by
 - (a) Dressings, tampons, douches, or pessaries;
 - (b) Irrigation of the bladder. This has been tried in a large number of cases with marked success.
 - (c) Instillation of glycerine into the body of the womb. This is being tried in suitable cases.
 - (d) Irrigation of the rectum is also being tried.
- (2) **General.** Treatment for anaemia caused by the disease is always given; iron and emulsions are chiefly used. Alkalies are given in acute cases, and vaccines are prescribed in special cases.

In-Patients.

The new wards for Venereal Diseases were opened at the Royal Infirmary in August. On the female side are 8 beds and 2 cots. One bed is in a single private ward and is used for maternity and special cases.

165 cases were admitted during the year. 35 were suffering from syphilis and 60 from gonorrhœa.

Amongst the cases treated were :—

8 cases of abdominal operation performed for serious complications of gonorrhœa.

3 cases of dilatation and curettage for chronic endometritis after long local treatment for gonorrhœa.

7 cases of abscess of Bartholine's Gland opened under anaesthesia.

14 cases of salpingitis for rest and treatment without operation.

3 cases of acute gonorrhœal rheumatism.

4 cases of primary syphilic sore.

2 cases of acute secondary rash.

10 children under the age of 9 years suffering from acute gonorrhœal vulvo vaginitis.

6 cases of ophthalmia neonatorum and 6 cases of keratitis and iritis treated by advice of the Ophthalmic Surgeon.

2 cases of jaundice and 2 cases of arsenical dermatitis were admitted.

The total number of in-patient days of treatment has been 2,689. Of these 749 were in-patients suffering from syphilis and 1,617 were suffering from gonorrhœa. 1,617 of these patient days related to City patients.

The number of cases discharged after completion of treatment has been 175. 28 cases were transferred for continuation of treatment to other Clinics.

BESSIE W. SYMINGTON,

Medical Officer of Female V.D. Clinic.

3.—Report on Work for Venereal Diseases at St. Mary's Home, 1 Ashleigh Road, for Treatment of City Patients, 1928.

The cases suffering from Venereal Disease treated at St. Mary's Home are specially chosen. They are young unmarried girls who are considered unsuitable for treatment at the Royal Infirmary Clinics.

Work is carried out in three parts :—

1. Work in the Hostel containing 9 beds, 4 being kept specially for maternity cases with cots for the babies.

2. Work in the Clinic. This is held on Thursday evenings. On Monday morning Hostel cases are seen.

3. Daily work carried out by the Sister in Charge as prescribed.

From the City the number of cases dealt with has been as follows :—

New cases admitted to the Hostel—21 girls and 3 babies.

New cases admitted to the Out-Patient Clinic—25.

15 cases discharged from the Hostel are continuing their treatment in the Clinic.

Of the 21 cases admitted, 2 were suffering from syphilis and gonorrhœa; 19 were suffering from gonorrhœa only; 3 were maternity cases.

At the Clinic 1,331 attendances have been made. For individual attention by the Medical Officer, 813; for intermediate treatment as prescribed, 538. The number of injections given has been 81. One minor operation was performed for abscess of Bartholine's Gland.

Attempts to follow up discharged cases are always made. The babies are seen at intervals by the Sister in Charge, and if they go out of the City some suitable person is asked to watch them.

BESSIE W. SYMINGTON,

Medical Officer.



APPENDIX VI.

STATISTICAL TABLES.

TABLE I.

MUNICIPAL WARDS. VITAL STATISTICS, 1928.

WARD.	No. of Inhabited Tenements, July, 1928 (1)	Estimated Population, July, 1928 (2)	No. of Persons per Tenement, Census, 1921. (3)	Deaths under 1 year (4)	Deaths. (5)	Deaths. (6)	Births (corrected). (7)
1. St. Martin's	533	2,142	4.02	29	23	4	
2. Newton	2,141	8,885	4.15	116	127	20	
3. St. Margaret's	3,089	12,942	4.19	316	148	25	
4. Wyggeston	3,539	15,359	4.34	418	218	37	
5. Latimer	3,817	17,710	4.64	182	211	23	
6. Charnwood	1,961	8,196	4.18	106	100	6	
7. Wycliffe	2,759	11,036	4.00	126	181	11	
8. De Montfort	1,658	7,212	4.35	75	72	4	
9. The Castle	3,159	13,330	4.22	211	139	13	
10. Westcotes	6,447	26,110	4.05	256	244	14	
11. The Abbey	5,030	23,188	4.61	261	204	15	
12. Belgrave	4,493	19,454	4.33	370	200	20	
13. West Humberstone	5,157	24,134	4.68	413	240	37	
14. Spinney Hill	6,948	29,320	4.22	412	278	19	
15. Knighton	4,810	18,710	3.89	161	179	6	
16. Aylestone	5,009	23,442	4.68	454	184	28	

TABLE 2.
MUNICIPAL WARDS. VITAL STATISTICS, 1928.

WARD	Birth-rate.	Death-rate.	Infant Mortality.	Zymotic rate.	Phthisis rate.	Average Phthisis Rate, Years 1912-21.	Average Phthisis Rate, Years 1922-28.
1. St. Martin's	13.5	10.7	137	0.46	0.46	1.34	1.25
2. Newton	13.0	14.2	172	0.22	1.68	1.77	1.56
3. St. Margaret's	24.4	11.4	79	0.07	1.23	1.87	1.50
4. Wyggeston	27.2	14.1	88	0.32	1.75	1.77	2.15
5. Latimer	10.2	11.9	126	0.16	1.63	1.55	1.43
6. Charnwood	12.9	12.2	56	0.24	0.85	1.46	1.05
7. Wycliffe	11.4	16.4	87	0.36	0.63	1.19	0.97
8. De Montfort	10.4	9.9	53	0.13	0.41	0.76	0.69
9. The Castle	15.8	10.4	61	0.30	1.12	1.11	1.47
10. Westcotes	9.8	9.3	54	0.15	0.95	0.99	0.96
11. The Abbey	11.2	8.7	57	0.34	1.07	1.22	1.11
12. Belgrave	19.0	10.2	54	0.25	1.23	1.11	1.00
13. West Humberstone	17.1	9.9	89	0.20	0.87	1.52	1.90
14. Spinney Hill	14.0	9.4	46	0.23	0.81	0.92	0.91
15. Knighton	8.6	9.5	37	0.10	0.48	0.60	0.66
16. Aylestone	19.4	11.7	62	0.17	0.72	0.87	0.87

TABLE 3.
Deaths in each Ward, classified for Age and Cause, 1928.

Ward	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1. St. Martin's	8	23	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Newton	44	59	127	..	..	..	..	..	..	..	..	..	..	..	..
3. St. Margaret's	46	73	148	..	..	..	..	..	..	..	..	..	..	..	..
4. Wyggeston	91	93	218	..	..	..	..	..	..	..	..	..	..	..	..
5. Latimer	35	7	90	91	211	..	..	..	..	..	..	..	..	..	..
6. Charnwood	6	..	24	70	100	..	..	..	..	..	..	..	..	..	..
7. Wycliffe	11	33	47	120	181	..	..	..	..	..	..	..	..	..	..
8. Dr. Montfort	4	1	19	48	72	..	..	..	..	..	..	..	..	..	..
9. The Castle	13	..	43	83	139	1	..	..	..	..	..	..	..	..	..
10. Westcotes	14	5	96	129	244	3	..	..	..	..	..	..	..	..	..
11. The Abbey	15	3	78	108	204	6	..	..	..	..	..	..	..	..	..
12. Belgrave	20	7	86	87	200	..	..	..	..	..	..	..	..	..	..
13. West Hulme	37	5	91	107	240	..	..	..	..	..	..	..	..	..	..
14. Stainley Hill	19	5	110	144	278	..	..	..	..	..	..	..	..	..	..
15. Knighton	6	4	50	119	179	..	..	..	..	..	..	..	..	..	..
16. Aylestone	28	7	74	75	184	..	..	..	..	..	..	..	..	..	..
Infirmary	45	20	183	74	322	..	..	..	..	..	..	..	..	..	..
Poor Law Infirmary	49	8	144	207	498	..	..	..	..	..	..	..	..	..	..
City Mental	16	21	37	..	..	..	..	..	..	..	..	..	..
Isolation Hospital	3	8	44	..	55	..	..	..	..	..	..	..	..	..	..

Deaths in institutions have been subtracted from the Wards in which the institutions are situated; and except in the case of the Workhouse and Med. H. Hosp., have been distributed to the Wards to which they belong. Deaths of persons transferred from the Workhouse to the Poor Law Infirmary, however, have not been distributed, as the home addresses of such persons are not obtainable.

TABLE 4.
(As required by Ministry of Health).

TUBERCULOSIS.

NOTIFICATIONS ON FORM A.

No. of Primary Notifications.

Age Periods.	Pulmonary.		Non-Pulmonary.	
	Males.	Females.	Males.	Females.
0—1	—	—
1—5	2	2
5—10	47	53
10—15	27	24
15—20	32	32
20—25	24	57
25—35	57	79
35—45	52	45
45—55	43	25
55—65	16	9
65 and upwards	5	1
Total Primary Notifications ..	305	327	44	63
Total Notifications on Form A. ..	363	387	54	73

NOTIFICATIONS ON FORM B.

Under 5	..	..	—	—	—	—
5—10	..	..	4	3	—	—
10—15	..	..	1	1	2	—
Total Primary Notifications ..	..	..	5	4	2	—
Total Notifications on Form B. ..	..	..	5	4	2	—

NUMBER OF NOTIFICATIONS ON FORM C.

Poor Law Institutions	10	3	—	—
Sanatoria ..	28	27	2	1
	(253)	(223)	(17)	(21)

The total number of fresh cases notified during 1928 on Forms A. and B., excluding cases previously notified, was:—

Pulmonary	..	..	..	668
Non-Pulmonary	..	..	..	117
Total	..	..	..	785

TABLE 4a.

TUBERCULOSIS CASES.

Supplemental Return.

Age Periods.	Pulmonary.		Non-Pulmonary.	
	Males.	Females	Males.	Females.
0—1	1
1—5	2	2
5—10
10—15	1
15—20	1	2
20—25	3	2
25—35	5	9
35—45	2	5
45—55	2	1
55—65	3	2
65 and upwards	..	3	1	..
Total Cases	..	21	23	14
				9

TABLE 5.—Showing Number of Deaths from Tubercular Diseases in Leicester in past years.

Year.	Phthisis.		Other Tuberculous Diseases.		Total Tuberculous Deaths.	
	Deaths.	Rate per 100,000 Population.	Deaths.	Rate per 100,000 Population.	Deaths.	Rate per 100,000 Population.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
*1903	266	123	111	51	377	175
1904	353	163	96	44	449	207
1905	288	132	87	40	375	171
1906	339	154	71	32	410	187
1907	275	124	99	44	374	169
1908	287	128	104	46	391	175
1909	290	129	82	36	372	166
1910	281	124	77	34	358	158
1911	288	126	66	28	354	155
1912	284	123	89	38	373	162
1913	301	130	82	35	383	165
1914	273	117	88	37	361	155
1915	325	143	76	33	401	177
1916	306	135	67	29	373	165
1917	343	157	78	35	421	193
1918	316	145	82	37	398	182
1919	264	111	62	26	326	138
†1920	255	107	72	30	327	138
1921	278	116	73	30	351	147
1922	294	123	67	28	361	151
1923	285	118	36	15	321	133
1924	287	118	62	25	349	143
1925	305	125	59	24	364	150
1926	282	116	43	17	325	134
1927	283	115	63	26	346	141
1928	265	107	42	17	307	124

* The rates for the years 1903-10 have been revised in the light of the 1911 Census.

† The rate for the year 1920 has been revised in the light of the 1921 Census.

TABLE 6.

Age and Sex Distribution of Deaths from Phthisis in 1928.

Age Period.		Males.	Females.	Total.
0-1	..	..	1	1
1-5	..	..	3	3
5-20	..	..	9	16
20-40	..	..	65	66
40-60	..	..	55	24
60-80	..	..	17	9
Over 80	..	..	..	..
All ages	..	150	115	265

Occupations of Persons Dying from Phthisis in 1928.

SHOE TRADE:	M.		F.		M.	F.
Finishers	10	1	Army Pensioners	..
Clickers	10	..	Boxmakers	..
Rivettors	1	..	Porters	..
Pressmen	1	Licensed Victuallers	..
Machinists	7	10	Shop Assistants	..
Various	17	..	Warehousemen	..
Total in Shoes	..	45	12	..	Various	..
*Hosiery Trades	..	6	10	..	Occupations not stated (includes Married Women, Widows, Children and Per- sons of no occupa- tion)	31
Labourers	..	27	..	..	..	10
Clerks	..	8	2	..	..	..
Tailoring Trade	..	2	1	..	..	..
Vanmen
Soldiers
Engineers	7	..	Total	..
Painters	1	..	..	150
Dressmakers	1	..	..	115

* A large number of *married* women are engaged in the Hosiery Trade, but these are not included, for in the case of deaths of married women and widows, only the husband's occupation is registered.

TABLE 7.
Showing the number of Cases notified of the principal Notifiable Diseases for the
Fourteen Years, 1915-1928.

DISEASE.	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Smallpox	0	0	0	0	0	0	0	0	5	*72	0	6	90	
Scarlet Fever	332	647	573	583	579	916	714	576	335	774
Diphtheria	156	115	128	154	272	471	324	142	429	350
Enteric Fever	13	9	3	34	30	15	27	9	5	4
Erysipelas	331	154	114	101	131	127	84	101	87	96
Puerperal Fever	25	16	4	6	11	18	21	12	7	11
Puerperal Pyrexia	901	..	..	655	746	658	572	497	566	692
Phthisis	159	..	..	98	82	47	59	105	43	71
Other Forms of Tubercle	61	67	66	51	101	101	87	66	53	28
Ophthalmia	5	7	4	2	4	7	4	0	3	2
Cerebro-Spinal Fever	4	3	5	3	3	4	2	1	1	12
Poliomyelitis	3807	4572	1686	262	(Notification discontinued.)					..
Measles	9	10	6	12	22	26
Encephalitis Lethargica	131	138	177	209	247	239
Pneumonia	143	236
Chickenpox	639	..
Totals	1994	4825	6222	3448	2098	2460	2013	1768	1859	1982
														3791

* The figures include cases discovered by the Medical Officer of Health.

TABLE 8.
Showing the number of Deaths from Zymotic (or Germ) Diseases in the Fourteen Years
1915-1928.

DISEASE.	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scarlet Fever	73	140	98	59	1	83	7	48	21	0	43	8	18	1
Diphtheria	2	3	5	2	2	1	7	2	4	10	5	3	4	1
Whooping Cough	27	11	18	15	30	41	28	20	9	35	34	37	11	17
Enteric Fever	19	38	33	34	11	23	33	25	31	18	69	21	29	7
Diarrhoea	2	2	2	2	4	3	3	2	3	1	1	0	1	0
Enteritis	84	21	15	23	21	30	16	38	62	57	40	22	50	0
Erysipelas	43	49	26	31	48	67	42	22	19	10	5	2	2	1
Influenza	18	7	5	1	6	0	5	1	2	8	10	9	5	1
Puerperal Fever	20	18	*	†	330	15	47	80	31	39	55	15	54	18
Cerebro-Spinal Fever	5	0	6	4	8	6	5	3	3	7	11	2	7	1
Poliomyelitis	7	2	1	8	6	3	3	0	0	3	5	2	2	1
Encephalitis Lethargica	2	1	1	1	2	0	1	1	0	0	0	7	2	1
Pneumonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	347	308	162	126	451	481	442	479	375	409	554	310	366	294

N.B.—In calculating the Zymotic rate since 1923, all the above deaths have been included except pneumonia. Particulars of deaths from Tuberculosis are given in Tables 5 and 6.

* Epidemic year. Deaths during epidemic, June to December, 1927.
† Epidemic year. Deaths during epidemic, January to April, 1929.

TABLE 9.—Vital Statistics of whole District during 1928 and previous years. City of Leicester.

YEAR.	Population estimated to middle of each year, revised in light of 1921 Census.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.	
		Uncorrected Number.	Nett. Number.	Rate. (5)	Number.	Rate. (6)	Number.	Rate per 1,000 Nett Births. (11)	Number.
1918	217,537	3286	3246	14.92	3981	18.36	277	17.9	351
1919	235,847	3811	3774	15.99	3098	13.13	241	226	370
1920	236,873	3934	3905	24.91	2535	10.69	173	51.2	528
1921	237,900	5074	5097	21.42	2527	10.62	182	53.2	438
1922	238,800	4729	4646	19.44	2675	11.19	181	54.4	408
1923	239,700	4647	4593	19.16	2396	9.99	182	56.0	386
1924	241,800	4466	4380	18.11	2511	10.38	218	438	346
1925	242,100	4316	4197	17.33	2709	11.18	212	63.7	368
1926	241,800	4268	4119	17.02	2542	10.50	214	64.9	319
1927	245,000	4124	3965	16.18	2657	10.84	273	660	298
1928	246,000	4216	3988	16.21	2395	9.73	268	621	282

Number of inhabited tenements, July, 1928. 60,550
Average number of persons per house, Census, 1921 4.28

Area of District in acres (exclusive of
area covered by water) 8,582

NOTE.—This Table has been filled in in accordance with the instructions given on the form supplied by the Ministry of Health.

TABLE 10.
LEICESTER BOROUGH.

Showing estimated Population, Marriage-rates, Birth-rates, and Death-rates (General and Zymotic) per 1000 living during the last 81 years, 1848-1928.

Year. (1)	Estimated Population. (2)	Marriage Rate. (3)	Birth Rate (4)	Death Rate. (5)	Zymotic (Death) Rate. (6)	Infant Mortality. (7)
1848	57,705	29.86	34.71	25.77	5.87	
1849	58,736	21.58	36.96	28.73	7.05	
1850	59,788	21.04	37.45	23.94	4.13	
1851	60,760	21.11	40.11	25.57	5.48	
1852	61,407	22.96	38.83	28.84	8.42	
1853	62,181	22.90	36.71	27.02	5.45	
1854	62,903	20.40	39.06	25.11	6.65	
1855	63,624	19.14	36.16	23.55	2.87	
1856	64,366	20.02	37.32	21.16	3.10	
1857	65,119	20.60	37.48	27.58	8.19	
1858	65,835	19.14	34.54	28.76	8.07	
1859	66,663	22.56	37.77	24.59	4.99	
1860	67,456	19.80	38.05	20.47	1.27	
1861	68,638	18.58	37.01	25.25	5.71	
1862	70,986	21.20	38.07	23.38	3.01	
1863	73,413	25.74	40.00	29.95	7.96	
1864	75,922	25.68	41.01	26.96	5.41	
1865	78,513	25.38	41.09	25.02	5.20	208.9
1866	81,197	24.94	42.02	23.33	3.37	205.1
1867	83,970	22.18	41.66	24.59	4.31	226.2
1868	86,837	22.62	41.32	28.15	7.88	250.6
1869	89,804	21.12	41.87	25.60	5.10	229.0
1870	92,873	21.22	40.90	27.33	7.21	235.2
1871	95,823	23.03	41.55	26.07	5.83	252.4
1872	98,251	23.90	42.36	26.95	8.23	231.3
1873	100,741	24.00	44.14	23.83	5.05	208.4
1874	103,294	20.39	42.34	24.29	3.83	222.6
1875	105,913	22.36	40.31	27.28	6.56	242.0
1876	108,599	22.64	44.02	23.58	5.26	199.9
1877	111,355	21.24	42.68	23.48	3.21	188.7
1878	114,182	19.38	41.85	21.89	4.18	205.2
1879	117,083	19.48	40.11	22.64	3.06	187.3
1880	120,059	19.60	40.04	24.73	6.48	220.1
1881	123,146	18.66	38.26	21.55	4.45	204.8
1882	116,275	19.02	38.46	20.04	3.23	191.4
1883	120,483	18.64	37.26	19.18	2.56	190.7
1884	132,773	17.3	36.5	22.1	4.2	233.5
1885	136,147	16.3	34.3	19.3	3.3	193.5
1886	139,606	17.4	34.8	19.6	2.8	216.5
1887	143,153	16.6	32.7	19.1	3.0	215.8

TABLE 10—Continued.

Year. (1)	Estimated Population. (2)	Marriage Rate. (3)	Birth Rate. (4)	Death Rate. (5)	Zymotic (Death) Rate. (6)	Infant Mortality. (7)
1888	146,790	15.4	32.7	18.1	2.4	204.7
1889	150,520	16.0	31.8	16.6	2.3	209.6
1890	154,344	16.5	30.4	17.7	2.1	203.7
*1891	†177,353	19.1	33.5	21.2	3.3	214.5
1892	180,550	16.7	32.2	18.0	2.5	197.7
1893	183,900	15.8	32.6	19.7	3.5	220.4
1894	187,250	16.7	32.0	14.5	1.9	161.9
1895	190,600	16.4	31.2	17.4	3.0	206.6
1896	194,100	17.5	32.0	16.8	2.9	185.7
1897	197,600	16.7	31.6	17.9	1.9	206.0
1898	201,250	17.7	30.5	17.2	3.4	191.1
1899	204,900	17.5	30.6	18.1	3.4	196.0
1900	208,600	17.3	29.7	17.8	3.6	174.1
1901	212,498	17.1	29.0	15.7	2.3	178.0
1902	213,974	16.3	29.5	14.8	1.5	153.3
1903	215,461	16.5	27.9	14.2	1.4	161.3
1904	216,958	17.0	27.5	15.0	2.0	161.1
1905	218,464	17.2	26.9	14.0	1.6	146.5
1906	219,980	16.1	26.6	15.1	2.4	166.2
1907	221,508	16.6	24.9	13.4	.9	130.1
1908	223,046	16.0	25.4	13.9	1.6	129.7
1909	224,595	15.7	24.1	14.0	1.3	126.6
1910	226,154	17.1	23.7	12.4	.7	126.3
1911	227,634	16.6	22.9	13.4	1.4	130.0
1912	229,294	16.3	22.5	13.5	.9	109.0
1913	230,970	16.4	22.8	13.3	.7	119.3
1914	232,664	16.7	22.1	14.1	1.1	119.9
1915	232,664	24.1	20.8	14.9	.5	122.8
1916	225,907	18.3	20.7	13.6	.8	104.8
1917	217,537	16.6	16.9	13.5	.7	105.0
1918	217,537	18.6	14.9	17.8	.5	108.1
1919	236,059	21.3	15.3	13.0	.3	98.0
1920	236,874	23.5	24.9	12.1	.8	89.4
1921	237,900	20.0	21.4	12.0	.5	85.9
1922	238,800	19.3	19.4	12.7	.5	87.8
1923	239,700	18.1	19.16	11.57	.4	84.0
1924	241,800	17.4	18.47	12.12	.7	79.0
1925	242,100	17.6	17.33	12.90	1.3	87.6
1926	241,700	16.9	17.02	12.30	.7	77.4
1927	245,000	17.6	16.18	12.42	.5	75.1
1928	246,000	18.99	16.21	11.17	.2	70.7

* All figures after 1891 refer to extended Borough.

† This is the population of the extended Borough. The figures in the other columns for the same year refer to the old Borough.

The figures since 1892 have been revised in the light of the census figures of the different census years—1901, 1911 and 1921. The population for the year 1920 having been considerably over-estimated has necessitated important corrections in that year.

TABLE 11. City of Leicester.

INFANT MORTALITY DURING THE YEAR 1928.

Nett Deaths from stated Causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 Week	1 to 2 Weeks	2 to 3 Weeks	3 to 4 Weeks	Total under 1 Month	1 to 3 Months	3 to 6 Months	6 to 9 Months	9 to 12 Months	Total Deaths under 1 Year
All Causes Certified.	91	22	4	7	124	45	63	20	30	282
Smallpox
Chicken-pox
Measles	1	..	..	1
Spina bifida
Whooping-cough
Diphtheria and Croup	1	2	3	6
Erysipelas
Tuberculous Meningitis	1	1	..	2	4
Abdominal Tuberculosis
Other Tuberculous Diseases	1	1	2	..	4
Meningitis (not Tuberculous)	..	1	..	1	2	1	..	1	..	4
Convulsions	10	2	2	..	14	6	7	..	28
Laryngitis	1	..
Bronchitis	1	..	..	..	..	..	..	..	..
Pneumonia (all forms)	8	10	2	12	32
Diarrhoea	8	24	6	43
Enteritis	1	..	1	..	4	1	7
Colitis
Gastritis
Syphilis	1	1	1	..	1	..	1
Rickets	1	1	..	..	..	..	4
Suffocation (overlying)	2	..	..	1	3	2	..	..	1
Injury at Birth	5
Atelectasis	8	..	..	1	..	..	9
Congenital Malformations ..	2	1	..	..	3	1	..	..	..	4
Premature Birth	44	7	..	2	53	1	..	..	54
Atrophy, Debility and Marasmus	12	7	1	21	3	9	..	33
Other Causes	11	2	..	15	6	4	5	30

Nett Births in the Year legitimate, 3,744.
illegitimate, 244.Nett Deaths in the Year of legitimate infants, 257.
illegitimate infants, 25.

TABLE 12.

VENereal Disease.

Form V.D. (R.), as required by Ministry of Health.

Return relating to all persons who were treated at the Treatment Centre at Leicester Royal Infirmary during the year ended the 31st December, 1928.

TABLE 12a.

VENEREAL DISEASE.

Form V.D. (R.), as required by Ministry of Health.

Statement showing the services rendered at the Treatment Centre during the year 1928, classified according to the areas in which the patients resided.

	Leicester. shire.	Leicester- shire.	Rutland.	Warwick- shire.	Northamp- tonshire.	Stafford- shire.	TOTAL.
A. Number of cases from each area dealt with during the year <i>for the first time</i> and found to be suffering from :—							
Syphilis	163	54	219
Salt Chancre
Gonorrhœa	377	134	512
Conditions other than Venereal	177	68	245
Total	717	256	976
B. Total number of attendances of all patients residing in each area							
	20700	5333	26048
C. Aggregate number of " In-patient days " of all patients residing in each area							
	2401	1395	3855
D. Number of doses of arsenobenzol compounds given in the :—							
1. Out-patient Clinic	2772	1207	3980
2. In-patient Department	41	25	67
to patients residing in each area.							

TABLE 13.

**VENEREAL DISEASE CLINICS AT ROYAL INFIRMARY.
NEW CASES AND RENEWED ATTENDANCES.**

YEAR.	NEW PATIENTS.			RENEWED ATTENDANCES.		
	MALES.	FEmaLES.	GON.	MALES.	FEmaLES.	GON.
SYPH.	SYPH.	GON.	SYPH.	SYPH.	GON.	
*1917	101	138	79	99	696	1285
1918	125	184	166	90	1313	413
1919	218	374	184	35	2759	674
1920	205	250	181	56	1934	1429
1921	168	198	208	45	3426	1058
1922	148	179	149	29	5360	1741
1923	111	198	123	66	3707	631
1924	93	166	119	98	4423	812
1925	66	202	72	84	3030	944
1926	99	291	90	118	4026	2456
1927	70	275	75	102	4859	1448
1928	71	246	104	136	2948	2279
					2516	2364
					7228	2245
					8323	2143
					3164	2428
					9761	2557
					2946	2591
					10429	3616

— Nine Months only.

TABLE 15. DEATHS FROM CANCER, 1928.

Classified according to Age, Sex and Organ Affected.

Organ Affected.	Under 40 years		40-60 years.		Over 60 years.		All Ages.	
	M.	F.	M.	F.	M.	F.	M.	F.
Lip	7	..	10	..
Tongue	3	..	1	2	..
Jaw	4	..	1	..	1
Mouth	1	..	..
Larynx	5	..	5	..
Oesophagus	2	..	11	4	13
Stomach	..	2	1	9	10	20	23	31
Intestines	2	..	..	2	2
Colon	..	1	..	6	3	9	10	16
Rectum	..	1	..	5	..	17	10	23
Liver	5	5	15	10
Pancreas	1	..	1	2	1
Spleen	1	..	4	4
Lungs	..	1	..	2	3	1	2	3
Kidney	1	..	2	..
Bladder	3	1	8	5	11
Prostate
Testicle	5	..	8
Ovary	18	..	6
Uterus	21	1
Breast	1	..	13	..	35
Bones
Other Forms or not specified	..	3	1	10	9	10	10	23
Total	..	8	4	49	69	101	118	158
								191

TABLE 15a. CANCER DEATHS, 1927-28.

Alimentary Tract	1927	4	2	31	21	77	54	109	77
	1928	4	2	33	19	71	67	108	88
Female Sex Organs	1927	..	3	..	38	..	33	..	74
	1928	..	1	..	36	..	30	..	67
Other Organs or Parts	1927	2	3	12	8	23	16	37	27
	1928	4	1	16	14	30	21	50	36
Totals	..	1927	3	8	43	67	100	103	146
		1928	8	4	49	69	101	118	158
									191

The above table has been prepared with a view to showing where the difference in cancer deaths in 1927 and 1928 has occurred.

TABLE 16. Midwives practising in Leicester, 1928.

NAME.	REG. NO.	ADDRESS.
* Alcock, Winifred	63759	1 Spence Street.
* Adcock, Hannah	32386	56 Clarendon Park Road.
* Allen, K. M.	69138	229 Melton Road.
† Blythe, Eliza	2760	13 Fairfield Street.
* Bamber, Mabel Elizabeth	12983	12 Portman Street.
* Blockley, Clara	70842	29 Marjorie Street.
* Bateman, Edna Elizabeth	70829	33 Severn Street.
* Coe, Lizzie A.	23561	103 Down Street.
* Inley, Letitia	39957	9 De Montfort Square.
* Carr, Beatrice	73803	31 Linton Street.
* Camacho, M. S.	57274	649 Aylestone Road.
* Condon, Elizabeth	67186	Tweedbank, Bolsover Street.
* Dawkins, Jemima	36754	4 Pool Road.
* Douson, Sarah E.	66243	35 Windley Road.
* Davis, Catherine	72670	14 Uplands Road, Southfields Drive.
* East, Florrie	50887	11 New Bridge Street.
* Eyre, Blanche G.	67246	14 Lincoln Street.
* Eden, Lily	68879	5 Thoresby Street.
* Earl, Ivy Bell	71229	7 Tailby Avenue.
Gawthorne, Fanny	30974	45 Aylestone Road.
* Gardner, Gertrude	45160	3 Emfield Avenue.
* Gill, Dorothy	70991	1 Gedding Road.
* Hunt, Annie A.	25486	166 Charnwood Street.
* Hill, Marilda	28909	88 Knighton Lane.
Howsam, Miriam	5223	96 Sylvan Street.
* Hicks, Louisa S.	37583	58 Bassett Street.
* Harding, Laura	60388	70 Lytton Road.
* Hurd, Hilda	70351	34 Diseworth Street.
* Hopkins, Margaret Lucy	71043	39 Hallam Crescent East.
* Hollyoak, Elsie	55864	187 Sheridan Street.
* Ingham, Adelaide	41739	58 Loughborough Road.
* Jarrett, Grace Ethel	51021	66 Uppingham Road.
* Kirk, Veronica	4259	7 Conduit Street.
* Langton, Annie	11389	236 Clarendon Park Road.
* Ledger, S. Ellen M.	51258	7 Willow Street.
* Langton, Ellen	69623	27 Lorne Road.
March, Charlotte	1037	180 Grasmoor Street.
* McCaull, Jane	49841	10 Shaftesbury Road.
* Martin, Rose	67874	62 Earl Russell Street.
* Martin, Lilian M.	41332	301 Clarendon Park Road.
* Noon, Lucy A.	30688	1 Spence Street.
* Pilsbrough, Maria	36784	Roma, Blackbird Road.
* Potter, Frances A.	49911	10 Shaftesbury Road.
* Payne, Lillian Emily	43317	7 Gipsy Road.
* Pateman, Clara	67428	20 Warwick Street.
* Payne, Letitia Eva	72326	193 Narborough Road.
* Robertson-Ritchie, Ethel	69226	15 Napier Street.
* Ruscoe, Marie A.	68539	66 Uppingham Road.
* Runicorn, Gertrude	67475	41 Walton Street.
* Smith, Sarah E.	33745	87 Harrison Road.
* Simister, E. Kensey	28446	36 Wood Hill.
* Sparrow, Kate	42262	33 Severn Street.
* Smith, Mary	55034	32 Narborough Road.
* Starnier, Edna	58618	7 Warwick Street.
* Smith, Edith E.	69730	16 Constitution Hill.
* Saunders, Rose Lilian	72390	Waltham House, Saffron Lane.
* Tinton, Marjorie	70298	Sundial Nursing Home, Aylestone Road.
* Wakeling, Ada	33774	502 Aylestone Road.
* Whimett, Annie A.	54561	40 Mill Hill.
* Wright, Catherine A.	24962	193 Narborough Road.
* Wyles, Violet	73062	132 The Fairway, Saffron Lane.

* Holds Certificate of Central Midwives' Board.

† Holds Certificate of London Obstetrical Society.

‡ Trained at Maternity Hospital, Canseway Lane.

§ Trained at Municipal Maternity Home.

TABLE 17.

MUNICIPAL MATERNITY HOME,
WESTCOTES DRIVE.Annual Statistics relating to Maternity Hospitals and Homes
for the Calendar Year 1928.

Number of Beds, 26.

1. Number of cases in the Home on 1st January, 1928	19
2. Number of cases admitted during 1928	515
3. Average duration of stay	14 days
4. Number of cases delivered by—	
(a) Midwives	351
(b) Doctors—	
Doctors engaged and attended own patients	71
Doctor called in	50
	— 121
5. Number of cases in which medical assistance was sought by the midwife with reasons for requiring assistance:—	
(a) Ante-natal.—Albuminuria, 6 ; malpresentation for version, 4 ; contracted pelvis, 7 ; A.P.H., 2 ; accidental haemorrhage, 1 ; Threatened abortion, 2	22
(b) During labour.—Uterine inertia, 10 ; rigid peri- neum, 8 ; complicated breech, 8 ; persistant "occipito-posterior," 8 ; head not engaged, 3 ; long second stage, 12 ; fibraids, 1	50
(c) After labour (state separately number of ruptured perineums which required suture).—Retained placenta, 2 ; adherent placenta, 1 ; lacerated perineum, 7 ; rise of temp., 8 ; general debility, 2 ; persistent A.B.D. dist., 1 ; other, 4	25
(d) For infant.—Watery eyes, 6 ; oph. neon., 4 ; prematurity, 3 ; congenital defects, 4 ; atelectasis, 4 ; other, 4	25

TABLE 17—continued

6. Number of cases notified as—				
(a) Puerperal fever (1 fatal)	2			
(b) Puerperal pyrexia (i.e., rise of temperature to 100.4° F. for 24 hours, or its recurrence within that period) with the result of treatment in each case.				
Recovered, were discharged in good health ..	6			
7. Number of cases of pemphigus neonatorum ..	0			
8. Number of cases notified as ophthalmia neonatorum with result of treatment in each case.—Improved before child discharged under care of own doctor, 3; transferred to Royal Infirmary, 1	4			
9. Number of cases of "inflammation of the eyes," however slight.—Improved before discharge	6			
10. Number of infants not entirely breast-fed while in the Institution with reasons why they were not breast-fed.—Insufficient secretion, 4; mother ill, 2; spina bifida, 1	7			
11. Number of maternal deaths with causes.—Septicæmia,	1			
12. Number of foetal deaths (a) stillborn, and (b) within 10 days of birth and their causes—and the results of the postmortem examination if obtainable:—				
(a) Macerated foetus, 6; stillborn, 5	11			
(b) Atalectasis, 2; feebleness from birth, 2; prematurity, 1; other, 2	7			

Special Note.—IMMEDIATE INFORMATION should be sent to the Ministry of the following occurrences in the Institution, with a brief statement of the circumstances of each case:—

1. Every case of maternal mortality occurring in the Institution, or due to illness contracted in the Institution.
2. Every case of puerperal fever or puerperal pyrexia, whether nursed in the Institution or transferred to another Institution.
3. Every case of pemphigus neonatorum.

TABLE 18.

City of Leicester.

MATERNITY HOME, WESTCOTES DRIVE.

Income and Expenditure for the Two Years ending
31st March, 1929.

		Year 1927-28.	Year 1928-29.
EXPENDITURE.			
Salaries		£ 733 5 9	£ 748 14 11
Saperannuation: Corporation's Contributions		58 12 4	54 5 11
National Workmen's Compensation and Guarantee Insurance		22 1 11	32 18 2
Fire Insurance		6 9 3	6 1 0
Rates		119 6 8	119 6 8
Furniture and Equipment		170 11 5	62 16 4
Repairs, Painting, &c.		259 3 7	238 16 2
Heating, Lighting and Cleaning		558 10 10	531 0 9
Provisions		1082 10 5	1152 1 4
Drugs and Medical Requisites		194 9 11	232 18 2
Laundry and Cleaning Materials (excluding Wages)		269 15 8	175 11 5
Garden and Grounds		210 8 4	185 7 3
Clothing and Linen		145 5 1	138 19 11
Lecture Fees, &c.		77 15 0	128 10 6
Printing, Stationery, Postage and Telephone		78 4 1	72 4 11
Sundries		17 5 5	34 16 5
Total Expenditure		£ 4003 15 8	£ 3914 9 10
INCOME.			
Maternity Fees		2278 16 10	2467 0 6
Training Fees		221 0 0	162 0 0
Rent of Garages, &c.		159 16 0	167 2 6
Sundries		0 1 1	0 1 7
Contribution by Ministry of Health in aid of Training of Midwives		60 0 0	75 0 0
Total Income		£ 2749 13 11	£ 2871 4 7
Net Cost (excluding Loan Charges)		£ 1284 1 9	£ 1043 5 3

ALFRED RILEY,

City Treasurer.

16th July, 1929.

• TABLE 19. City of Leicester.

ST. MARTIN'S DAY NURSERY.

Income and Expenditure for the Two Years ending
31st March, 1929.

EXPENDITURE.	Year 1927-8	Year 1928-29
Salaries	£ 642 2 1	£ 679 18 8
Superannuation: Corporation's Contributions	30 5 2	29 8 7
National, Workmen's Compensation and Guarantee Insurance	28 12 4	26 12 1
Fire Insurance	0 5 9	0 5 0
Rent and Rates	298 6 8	313 6 8
Furniture and Equipment	91 0 0	68 1 10
Repairs, Painting, &c.	109 1 2	117 3 11
Heating, Lighting and Cleaning	233 11 4	201 8 10
Provisions	685 12 4	605 4 8
Drugs and Medical Requisites	12 9 8	8 10 0
Laundry	97 7 11	97 5 10
Uniforms and Clothing	95 17 2	83 3 6
Printing, Stationery, Postage and Telephone	8 1 9	9 8 6
Sundries	41 3 5	39 7 3
	£2373 16 9	£2279 5 4

INCOME.

Maintenance Charges	795	19	11	695	17	0
Contribution from Education Committee in respect of Mothercraft :						
Tuition	150	0	0	150	0	0
Meals for School Girls	77	0	0	66	9	6
Meals for Mothers	9	14	0	24	1	6
	£1032	13	11	£936	8	0
Net Cost	£134	2	10	£1342	17	4

16th July, 1929.

ALFRED RILEY

City Treasurer

TABLE 20.

City of Leicester.

INFANTS' MILK DEPOT.

Income and Expenditure for the Two Years ending
31st March, 1929.

EXPENDITURE.	Year 1927-28.			Year 1928-29.		
	£	s.	d.	£	s.	d.
Salary and Wages	347	18	4	366	11	8
Superannuation: Corporation's contribution	16	2	5	17	6	8
Purchase of Milk, &c...	2324	19	0	2587	19	0
Medical Requisites, &c.	65	12	5	62	4	3
Rent, Rates and Insurance	73	1	1	73	6	4
Fuel, Light and Water	40	8	10	35	5	3
Repairs to Premises	36	8	4	—	—	—
Telephone	9	15	3	9	4	8
Printing, Stationery and Sundries	38	10	2	34	14	2
Total Expenditure	£2952	15	10	£3186	12	0
INCOME.						
Sale of Milk, Virol, &c.	2905	5	7	3163	16	9
Proportion of Salary of Manageress charged to Maternity and Child Welfare Account	136	5	8	151	4	8
Total Income	£3041	11	3	£3315	1	5
Net Surplus	£88	15	5	£128	9	5

ALFRED RILEY,

City Treasurer.

16th July, 1929.

TABLE 21.

Monthly Rainfall and mean Temperature during 1928,
as recorded at the City Mental Hospital.

Figures supplied by Dr. J. Francis Dixon.

MONTH.			Rainfall in inches.	Mean Temperature Fahr.
January	..	..	4.25	38.24
February	..	..	1.73	39.38
March	..	..	1.29	42.35
April	..	..	0.71	46.20
May	..	..	1.39	50.32
June	..	..	3.33	55.06
July	..	..	1.35	62.38
August	..	..	2.49	59.85
September	..	..	1.10	54.01
October	..	..	3.61	49.26
November	..	..	3.15	44.50
December	..	..	2.01	36.16

Total rainfall in 1928 26.41 inches.
No. of days on which rain fell (.01 inches or more) .. 210

Rainfall in previous years.

			Inches of rain	No. of days on which rain fell
1927	..	..	32.59	.. 210
1926	..	..	26.78	.. 186
1925	..	..	23.06	.. 175
1924	..	..	28.49	.. 198
1923	..	..	25.03	.. 201
1922	..	..	29.23	.. 187
1921	..	..	19.03	.. 136
1920	..	..	25.10	.. 192
1919	..	..	30.98	.. 191
1918	..	..	24.52	.. 190

TABLE 22.
Showing Births, Vaccinations and Smallpox in Leicester, 1838-1928.

Year (1)	Births (2)	Vaccina- tions Regist'd Public and Pvt. (3)		Small- pox Deaths (4)	Small- pox Cases (5)	Year (6)	Births (7)	Vaccina- tions Regist'd Public and Pvt. (8)		Exemp- tions Granted (9)	Small- pox Deaths (10)	Small- pox Cases (11)
		Public	Pvt.					Regist'd	Public			
1838	1815	Not known	11	..	1883	4825	1958	..	3	12	..	6
1839	2024	..	50	..	1884	4851	1763	..	..	..	..	8
1840	1967	..	56	..	1885	4683	1842	..	..	..	..	1
1841	1972	..	31	..	1886	4863	1122	..	..	..	..	10
1842	1942	..	..	..	1887	4695	471	..	..	..	..	22
1843	2035	..	..	..	1888	4814	314	..	..	..	..	..
1844	2087	..	9	..	1889	4796	172	..	..	..	..	..
1845	2197	..	164	..	1890	4699	131	..	..	..	..	..
1846	2213	..	12	..	1891	4790	92	..	..	6	38	..
1847	2005	..	1	..	1892	5816	133	..	..	15	320	..
1848	2003	..	31	..	1893	6006	249	..	..	..	..	..
1849	2171	1613	66	..	1894	5995	133	..	..	..	..	8
1850	2239	1240	5	..	1895	5962	75	..	..	..	..	4
1851	2437	1292	2	..	1896	6212	86	..	..	..	..	..
1852	2387	1637	52	..	1897	6252	81	..	..	..	..	..
1853	2283	1843	11	..	1898	6152	92	..	..	..	..	..
1854	2467	2275	..	..	1899	6273	156	167	..	..	..	..
1855	2301	1771	..	..	1900	6207	343	598	..	..	..	..
1856	2402	1771	1	..	1901	6169	357	500	..	..	..	4
1857	2441	1880	17	..	1902	6313	1237	1500	5	18	..	..
1858	2276	2026	53	..	1903	6018	2487	1029	21	406	..	..
1859	2518	1447	3	..	1904	5981	1232	1044	4	307	..	..
1860	2567	1766	2	..	1905	5888	987	1112	..	..	..	5
1861	2540	1614	1	..	1906	5865	1073	1080	..	..	..	1
1862	2723	1388	..	..	1907	5534	1093	1256	..	..	..	..
1863	2937	1608	5	..	1908	5680	659	2401	..	..	..	..
1864	3114	1916	104	..	1909	5431	660	2367	..	..	..	..
1865	3226	1183	10	..	1910	5380	564	2335	..	..	..	..
1866	3412	1641	3	..	1911	5222	475	2964	..	..	..	..
1867	3496	1544	2	..	1912	5182	447	3173	..	..	..	1
1868	3588	3379	1	..	1913	5278	436	3391	..	..	..	..
1869	3760	3560	..	..	1914	5144	293	3438	..	..	..	..
1870	3799	3103	..	..	1915	4851	192	3812	..	..	..	..
			Not known		1916	4684	222	3931	..	..	..	..
1871	3982	3230	12	..	1917	3688	193	3287	..	..	..	..
1872	4162	4456	346	..	1918	3246	146	2724	..	..	..	..
1873	4447	3692	2	..	1919	3774	154	2954	..	..	..	..
1874	4374	3764	..	..	1920	5905	201	5364	..	..	..	..
1875	4270	3527	1	..	1921	5097	234	4662	..	..	..	..
1876	4781	3426	..	..	1922	4646	173	4286	..	..	..	..
1877	4753	3653	6	12	1923	4593	284	4109	..	..	..	5
1878	4779	3372	1	8	1924	4468	260	4062	..	..	..	72
1879	4697	3146	..	..	1925	4197	283	3908	..	..	..	..
1880	4860	2886	..	1	1926	4119	234	3710	..	..	..	7
1881	4712	3417	2	6	1927	3965	172	3684	..	..	..	..
1882	4857	3106	5	29	1928	3988	192	3712	..	..	..	90

The figures in this Table prior to the year 1890 are taken from the Fourth Report of the Royal Commission on Vaccination, App. 3, Tables 5, 6 and 51. They were prepared and handed to the Royal Commission by Mr. J. T. Biggs.

In 1863-64, owing to the Smallpox epidemic which prevailed, there were 4,320 additional public vaccinations performed by the Medical Officers to the Guardians. These were chiefly vaccinations of children omitted in previous years. They are not included in the figures for the two years in question.

TABLE 23.

Vital Statistics of the 38 Large Towns (excluding London and residential towns round London) with populations of over 100,000, 1928.

TOWN.	Population for 1928.	Birth Rate.	Death Rate.	Infant Mortality.	Diphtheria Death Rate.
*Brighton ..	147,600	13.9	12.4	49	0.10
Portsmouth ..	232,100	18.0	11.5	54	0.23
*Southampton ..	169,800	18.0	11.7	49	0.11
*Norwich ..	124,600	16.2	10.7	42	0.01
*Plymouth ..	187,600	17.2	13.2	70	0.18
Bristol ..	385,700	16.5	11.5	61	0.04
Stoke-on-Trent ..	276,900	19.9	11.6	86	0.02
*Wolverhampton ..	135,200	19.6	10.3	61	0.05
*Walsall ..	102,000	19.9	11.2	90	0.34
Birmingham ..	952,800	18.1	10.9	65	0.08
*Coventry ..	152,400	16.0	10.4	65	0.27
Nottingham ..	265,700	17.7	12.5	85	0.16
*Derby ..	137,700	17.6	10.8	64	0.12
*Stockport ..	125,200	14.6	12.4	76	0.02
*Birkenhead ..	162,000	18.1	11.3	78	0.04
Liverpool ..	872,900	21.9	12.8	92	0.11
*St. Helens ..	113,100	21.3	11.4	97	0.08
*Bolton ..	178,300	14.7	12.7	64	0.10
*Manchester ..	751,900	17.2	12.9	90	0.12
Salford ..	247,600	16.8	12.3	96	0.03
*Oldham ..	141,400	14.5	14.0	83	0.25
*Southend-on-Sea ..	107,900	13.9	10.4	40	0.06
*Blackburn ..	124,500	13.9	12.0	78	0.11
*Preston ..	127,100	15.1	12.4	86	0.07
*Huddersfield ..	112,100	13.8	12.9	65	0.06
Bradford ..	293,200	15.1	12.9	68	0.07
Leeds ..	482,600	15.9	12.4	77	0.04
Sheffield ..	524,900	16.1	11.3	73	0.06
Hull ..	296,600	20.6	12.6	80	0.07
Middlesbrough ..	133,600	24.1	12.8	88	0.03
*Sunderland ..	187,800	23.2	13.1	87	0.01
*South Shields ..	123,400	20.0	13.2	91	0.04
Gateshead ..	127,400	21.6	12.5	85	0.02
Newcastle-on-Tyne ..	288,500	18.8	12.4	82	0.02
Cardiff ..	225,600	18.1	11.6	77	0.07
*Rhondda ..	159,270	17.0	11.0	77	0.17
*Swansea ..	162,700	18.4	11.2	61	0.09
Average ..	—	17.6	11.9	73	0.09
[‡] LEICESTER ..	245,000	16.3	10.9	70	0.08

* Provisional figures only. From Registrar-General's Quarterly Return No. 320
 ‡ These differ slightly from the corresponding figures calculated locally and used in the rest of this report.

TABLE 24.

ALTITUDE ABOVE SEA LEVEL AT DIFFERENT POINTS
IN THE CITY OF LEICESTER.

						Feet above sea level.
North Evington Infirmary (just outside City Boundary)						330
Victoria Park	..	..	..	..	..	293
University College	..	..	..	..	..	286
Gilroes Cemetery	..	..	..	..	..	285
Western Park	..	..	..	..	..	271
Braunstone Park	..	..	..	..	..	267
Spinney Hill Park	..	..	..	..	..	264
Welford Road Cemetery	..	..	..	..	..	258
Isolation Hospital, Groby Road	..	..	..	..	..	258
Mental Hospital	..	..	..	..	..	244
Park Estate Building Site (Saffron Lane)						220-250
Abbey Park	..	..	..	..	..	175
Belgrave	..	..	..	..	..	165

The above levels are taken from "spot" levels written in
Ordnance Survey Plans. Data supplied by City Surveyor.

TABLE 25

CITY OF LEICESTER

(As required by the Ministry of Health.)

HOUSING CONDITIONS

For year ended 31st December, 1928.

GENERAL STATISTICS.

Area (acres)	8,582
Population (1928)	246,000
Number of inhabited houses (1921)	54,657
Number of families or separate occupiers (1921)	—
Rateable Value, 31st December, 1928	£1,523,811
Sum represented by a penny rate	£5,860

HOUSING.

Number of new houses erected during the year :—

(a) Total	1,591
(b) With State assistance under the Housing Acts:	
(i) By the Local Authority	506
(ii) By other bodies or persons	523

I.—UNFIT DWELLING HOUSES—INSPECTION.

(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	8,489
(2) Number of dwelling houses which were inspected and recorded under the Housing Consolidated Regulations, 1925	786
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	65

(4) Number of dwelling houses (exclusive to those referred to under the preceding sub-heading) found to be not in all respects reasonably fit for human habitation..	786
--	-----

2.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling houses rendered fit in consequence of informal action by Local Authority or their officers	1,529
--	-------

3.—ACTION UNDER STATUTORY POWERS.

A—*Proceedings under Section 3 of the Housing Act, 1925.*

(1) Number of dwelling houses in respect of which Notices were served requiring repairs	69
(2) Number of dwelling houses which were rendered fit after service of formal notices :	
(a) By owners	42
(b) By Local Authority in default of owners	0
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	0

B—*Proceedings under Public Health Acts.*

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	5,737
(2) Number of dwelling houses in which defects were remedied after service of formal notices :—	
(a) By owners	114
(b) By Local Authority in default of owners	0

C—*Proceedings under Section 11 of the Housing Act, 1925.*

(1) Number of representations made with a view to the making of Closing Orders ..	65
(2) Number of dwelling houses in respect of which Closing Orders were made ..	65
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit..	0
(4) Number of dwelling houses in respect of which Demolition Orders were made ..	12
(5) Number of dwelling houses demolished in pursuance of Demolition Orders ..	0

TABLE 26.

**LIST OF
REGISTERED NURSING HOMES,
(INCLUDING MATERNITY HOMES.)**

	ADDRESS.				NO. OF BEDS.
9 Mere Road	1
13 Beckingham Road	5
Central Nursing Home, 33	Severn Street			..	6
*1 Pool Road	4
40 Farnham Street	2
229 Melton Road	7
	Home of Twilight Sleep, 3	Elmfield Avenue		..	10
*79 St. Saviour's Road E.	2
49 St. Barnabas' Road	2
56 Clarendon Park Road	4
32 Narborough Road	4
193 Narborough Road	7
108 Humberstone Drive	1
66 Uppingham Road	4
2 Melbourne Street	1
"Coneston," Thoresby Street	2
38 Cromford Street	1
Maternity Hospital, Causeway Lane	26
*9 De Montfort Square	6
58 Loughborough Road	6
348 Aylestone Road	11
Sundial Nursing Home, Aylestone Road				..	12
10 Shaftesbury Road	1
22 Vicarage Lane	3

* Removed from Register in 1929.

TABLE 27.

DIPHTHERIA IN LEICESTER.

Cases notified and deaths registered during each quarter during years 1922-28. (From Registrar General's Quarterly Report.)

Year	Quarter	Cases	Deaths	Case Mortality %
1922	First ..	..	—	—
	Second ..	38	5	13.1
	Third ..	24	2	8.3
	Fourth ..	33	1	3.0
1923	First ..	27	3	11.1
	Second ..	37	1	2.7
	Third ..	26	1	3.8
	Fourth ..	41	5	12.2
1924	First ..	57	7	12.3
	Second ..	36	5	13.8
	Third ..	76	7	9.2
	Fourth ..	252	14	5.5
1925	First ..	152	11	7.2
	Second ..	76	8	10.5
	Third ..	38	4	10.5
	Fourth ..	81	9	11.1
1926	First ..	94	18	19.1
	Second ..	92	12	13.0
	Third ..	82	4	4.8
	Fourth ..	99	4	4.4
1927	First ..	73	7	9.5
	Second ..	42	0	—
	Third ..	61	2	3.2
	Fourth ..	136	2	1.4
1928	First ..	134	5	3.7
	Second ..	84	7	8.3
	Third ..	138	6	4.3
	Fourth ..	107	2	1.8
1929	First ..	60	2	3.3

TABLE 28.

Deaths during 1928 of Persons belonging to City of Leicester as classified by the Registrar General according to Disease, Sex and Age-Period.

CAUSES OF DEATH.	SEX	ALL AGES	0—	1—	2—	5—	15—	25—	45—	65—	75—
ALL CAUSES	M	1408	156	14	29	28	54	157	428	315	227
	F	1340	126	9	13	32	76	149	311	277	347
1. Enteric fever	M	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..
2. Smallpox	M	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..
3. Measles	M	..	..	..	..	..	..	..	..	..	..
	F	1	..	..	1	..	..	..	..	..	..
4. Scarlet fever	M	2	..	..	2	..	..	..	..	..	..
	F	2	..	..	1	..	1	..	..	..	..
5. Whooping cough	M	2	2	..	..	..	..	..	..	..	..
	F	5	4	..	1	..	..	..	..	..	..
6. Diphtheria	M	5	..	..	2	3	..	..	..	1	..
	F	12	1	2	1	6	1	..	..	..	..
7. Influenza	M	7	..	..	..	..	..	..	5	..	2
	F	11	..	..	..	..	1	..	2	3	5
8. Encephalitis lethargica	M	2	..	..	..	..	..	..	1	1	..
	F	1	..	..	..	..	..	..	..	..	..
9. Meningococcal meningitis	M	7	2	..	1	3	1	..	..	..	..
	F	8	2	..	1	2	3	..	..	..	..
10. Tuberculosis of respiratory system	M	150	..	..	2	2	24	62	52	8	..
	F	115	..	..	..	2	35	56	15	7	..
11. Other tuberculous diseases	M	21	3	1	2	3	4	3	5	..	..
	F	21	6	..	1	3	7	3	..	1	..
12. Cancer, malignant disease	M	158	..	..	..	..	1	10	78	47	22
	F	191	..	..	..	..	..	19	79	57	36
13. Rheumatic fever	M	1	..	..	..	..	..	..	1	..	..
	F	2	..	..	..	1	..	..	1	..	..
14. Diabetes	M	4	..	..	..	..	..	..	..	3	1
	F	11	..	..	..	..	..	..	6	2	..
15. Cerebral haemorrhage, &c.	M	112	..	..	..	..	1	5	43	30	33
	F	103	..	..	..	..	..	4	39	33	27
16. Heart disease	M	219	8	1	..	4	3	10	77	78	38
	F	237	4	..	1	5	8	19	55	64	81
17. Arterio-sclerosis	M	15	..	..	..	..	..	..	5	4	5
	F	14	..	..	..	..	..	..	2	4	8

TABLE 28—continued.

CAUSES OF DEATH.	Sex	All Ages	0—	1—	2—	5—	15—	25—	45—	65—	75—	
18. Bronchitis	..	M	60	5	1	..	..	..	2	12	21	20
		F	83	3	1	..	..	3	1	14	20	41
19. Pneumonia (all forms)	..	M	101	17	4	9	3	1	12	28	14	13
		F	86	13	5	3	4	2	5	25	15	14
20. Other respiratory diseases	..	M	12	2	..	1	..	1	..	5	2	1
		F	11	1	..	..	..	1	2	3	1	3
21. Ulcer of stomach or duodenum	..	M	10	..	..	..	..	..	4	1	3	2
		F	9	..	..	..	..	..	2	5	1	1
22. Diarrhoea, &c.	..	M	31	27	3	..	..	1	..	..	..	..
		F	19	16	..	..	1	..	..	..	..	2
23. Appendicitis and typhlitis	..	M	9	..	1	..	..	2	3	3	..	..
		F	4	..	..	..	..	2	2	..	..	..
24. Cirrhosis of liver	..	M	8	..	..	..	..	..	1	3	3	1
		F	7	..	..	..	..	..	1	3	3	..
25. Acute and chronic nephritis	..	M	60	..	..	..	1	2	3	18	22	14
		F	45	1	..	..	..	6	2	12	13	11
26. Puerperal sepsis	..	M	..	..	..	..	..	1	6	..	..	..
		F	7	..	..	..	..	..	..	..	..	..
27. Other accidents and diseases of pregnancy and parturition	..	M	..	..	..	..	..	..	..	..	..	..
		F	7	..	..	..	..	1	6	..	..	..
28. Congenital debility and malformation, premature birth	..	M	66	66	..	1	..	..	..	..	..	..
		F	67	66	1	..	..	..	..	..	..	..
29. Suicide	..	M	18	..	..	..	..	..	4	11	2	1
		F	7	..	..	..	..	..	1	4	2	..
30. Other deaths from violence	..	M	77	3	3	5	4	6	19	23	6	8
		F	26	2	..	..	2	1	2	9	3	7
31. Other defined diseases	..	M	229	20	..	4	4	6	12	49	70	64
		F	205	4	..	2	6	3	10	30	41	109
32. Causes ill-defined or unknown	..	M	22	1	1	1	1	2	4	8	2	2
		F	23	3	..	1	..	..	4	7	6	2

TABLE 29. ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901.

As required by the Ministry of Health.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Occupiers prosecuted.
(1)	(2)	(3)	(4)
Factories	111	8	..
(Including Factory Laundries)	268	3	..
Workshops .. ..	..	..	..
(Including Workshop Laundries) .. ..	..	..	..
Workplaces .. ..	..	..	..
(Other than Outworkers' premises) .. ..	..	..	..
Total	379	11	..

2.—Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Offences in respect to which Prosecutions were instituted.
	Found.	Remedied	Referred to H.M. Inspector	
(1)	(2)	(3)	(4)	(5)
Nuisances under the Public Health Acts:—				
Want of Cleanliness	7	7	..	..
Want of Ventilation	2	2	..	..
Overcrowding .. ..	..	..	..	..
Want of Drainage of Floors .. ..	..	..	..	..
Other Nuisances ..	14	12	..	..
Sanitary Accommodation	insufficient ..	3	3	..
	unsuitable or defective ..	..	..	..
	not separate for sexes ..	..	..	..
Offences under the Factory and Workshop Acts:—				
Illegal occupation of underground bakehouse (s. 101) .. ..	..	..	..	..
Other Offences ..	..	..	..	..
(Excluding offences relating to out-work and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)				
Total	26	24

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